

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS





STATE OF CALIFORNIA

The Resources Agency

Department of Water Resources

BULLETIN No. 130-66

HYDROLOGIC DATA: 1966

Volume II: NORTHEASTERN CALIFORNIA

Appendix D: SURFACE WATER QUALITY

Appendix E: GROUND WATER QUALITY

DECEMBER 1967

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

STATE OF CALIFORNIA
The Resources Agency
Department of Water Resources

BULLETIN No. 130-66

HYDROLOGIC DATA: 1966
Volume II: NORTHEASTERN CALIFORNIA

Appendix D: SURFACE WATER QUALITY

Appendix E: GROUND WATER QUALITY

DECEMBER 1967

RONALD REAGAN
Governor
State of California

WILLIAM R. GIANELLI
Director
Department of Water Resources

METRIC CONVERSION TABLE

ENGLISH UNIT	EQUIVALENT METRIC UNIT	
Inch (in)	2.54	Centimeters
Foot (ft)	0.3048	Meter
Mile (mi)	1.609	Kilometers
Acre	0.405	Hectare
Square mile (sq. mi.)	2.590	Square kilometer
U. S. gallon (gal)	3.785	Liters
Acre foot (acre-ft)	1,233.5	Cubic meters
U. S. gallon per minute (gpm)	0.0631	Liters per second
Cubic feet per second (cfs)	1.7	Cubic meters per minute
Part per million (ppm)	1 milligram per liter (mg/l)	
Part per billion (ppb)	1 microgram per liter (ug/l)	
Part per trillion (ppt)	1 nanogram per liter (ng/l)	
Equivalent per million (epm)	1 milliequivalent per liter (me/l)	

BULLETIN 130-66

Volume II

TABLE OF CONTENTS

	Page
Organization of Bulletin No. 130 Series	ii
Area Orientation Map	iii
Metric Conversion Table	iv
Abstract	vii

APPENDIX D

Surface Water Quality

Introduction	3
An Explanation of Column Headings	12

APPENDIX E

Introduction	125
Index of Monitored Areas	126

TABLES

Page

APPENDIX D

D-1	Sampling Station Data and Index	5
D-2	Mineral Analysis of Surface Water	13
D-3	Trace Element Analyses of Surface Water	95
D-4	Miscellaneous Constituents in Surface Water	96
D-5	Description of Salinity Observation Stations	106
D-6	Maximum Observed Salinity at Bay and Delta Stations	107
D-7	Salinity Observations at Bay and Delta Stations	109
D-8	Water Temperatures	115

APPENDIX E

E-1	Mineral Analysis of Ground Water	128
E-2	Trace Element Analyses of Ground Water	155

FIGURES

APPENDIX D

D-1	Surface Water Quality Sampling Stations Sacramento-San Joaquin Delta	8
D-2	Surface Water Quality Sampling Stations in Northeastern California	9
D-3	Average Daily Specific Conductance, Sacramento River at Keswick Dam	10
D-4	Average Daily Specific Conductance, Sacramento River at Walnut Grove	11
D-5	Lines of Maximum Annual Salinity Encroachment	108

APPENDIX E

E-1	Ground Water Basins in Northeastern California	127
-----	--	-----

ABSTRACT

Appendixes D and E of Volume II, Bulletin 130-66, present analytical values for dissolved minerals, trace elements, miscellaneous constituents, salinity (in the Delta) and water temperatures for selected surface water quality stations, and similar information for selected wells in the Sacramento Drainage Area and the northern portion of the Lahontan Drainage Area.

APPENDIX D
SURFACE WATER QUALITY

TABLE D-1
SAMPLING STATION DATA AND INDEX
Northeastern California

Station	Station Number	Location M D B S M	Beginning ^a of Record	Frequency ^b of Sampling	Analyses on Page
American River, Middle Fork near Auburn (22b)	A7 3100.00	12N/9E-6	7-58	B	59, 96
American River at Nimbus Dam (22a)	A7 1110.00	9N/7E-16	11-58	M	58, 95, 96
American River at Sacramento (22)	A0 7140.00	8N/5E-3	4-51 9-62	M A	33, 95, 96
American River, South Fork near Lotus (22c)	A7 4150.00	11N/9E-11	7-58	B	60, 96
Antelope Creek near Mouth (88c)	A0 4520.00	26N/2W-17	10-58	M	27, 96
Antelope Creek near Red Bluff (88c)	A4 5110.50	27N/2W-8	10-58	M	48, 96
Battle Creek near Cottonwood (88b)	A4 7110.00	29N/2W-6	4-58	M	49, 96
Bear River near Wheatland (76)	A0 6550.00	13N/5E-3	12-51	M	32, 95, 96
Big Chico Creek at Chico (85a)	A0 4250.00	22N/1E-28	1-59	M	26, 96
Big Chico Creek near Chico (85)	A4 2110.00	22N/2E-9	7-52	M	46, 97
Butte Creek near Chico (84)	A4 1110.00	22N/2E-36	7-52	M	45, 97
Cache Creek near Capay (80)	A9 1120.00	10N/2W-8	12-51	M	61, 95, 97
Cache Creek near Lower Lake (42)	A8 1350.00			M	62, 97
Cache Creek, North Fork near Lower Lake (79)	A8 2050.00			M	64, 97
Calaveras River below New Hogan Dam (16c)	B2 5300.00	3N/10E-1	1-64	M	71, 97
Calaveras River above New Hogan Reservoir (16d)	B2 5898.50	4N/11E-13	1-64	M	72, 97
Calaveras River at Jenny Lind (16a)	B0 2590.00	3N/10E-27	4-51	M	68, 97
Calaveras River near Stockton (16b)	B0 2520.00	2N/6E-26	7-58	M	67, 95, 98
Clear Creek near Igo (12d)	A3 6130.00	31N/6W-27	8-58	M	44, 98
Clear Lake at Lakeport (41)	A8 1720.00			M	63, 98
Colusa Trough near Colusa (87)	A0 2976.00	16N/2W-35	7-62	M	19, 98
Cosumnes River at McConnell (94a)	B- 1125.00	6N/6E-20	7-58	B	66, 85, 98
Cosumnes River at Michigan Bar (94)	B1 1150.00	8N/8E-36	7-52	B	69, 98
Cottonwood Creek near Cottonwood (12b)	A0 3520.00	29N/3W-7	4-51	M	23, 98
Cottonwood Creek below North Fork Cottonwood Creek (11a)	A0 3540.00	29N/6W-2	8-58	M	24, 98
Cottonwood Creek, South Fork above Corronwood Creek (11b)	A0 3595.00	29N/4W-17	11-58	M	25
Cow Creek near Millville (88a)	A4 8110.00	31N/3W-32	8-58	M	50, 99
Delta Cross Channel near Walnut Grove (96)	B9 1700.00	5N/4E-35	9-52	M	76, 95, 99
Elder Creek at Gerber (95a)	A0 3320.00	25N/3W-2	1-59	M	21, 99
Elder Creek near Paskenta (13c)	A3 3110.00	25N/6W-14	10-58	M	43, 99
Feather River, Middle Fork near Merrimac (10b)	A5 5100.00	21N/6E-2	7-63	M	55, 99
Feather River at Nicolaus (20)	A0 5103.00	12N/3E-12	4-51	M	29, 95, 99
Feather River, North Fork at Big Bar (19a)	A5 3140.00	23N/5E-32	7-63	M	53, 99
Feather River near Oroville (19)	A5 1140.00	19N/4E-2	4-51	M	51, 95, 99
Feather River below Shanghai Bend (20a)	A0 5120.00	14N/3E-11	7-58	M	30, 100
Feather River at Sutter Butte Canal, near Gridley	A0 5177	10N/3E-33	7-56	Continuous	118
Feather River, South Fork below Ponderosa Dam (19c)	A5 6080.00	20N/6E-33	7-56	M	54, 100
Feather River, West Branch, near Yankee Hill (19d)	A5 2100.00		10-64	M	52, 100
Feather River, at Yuba City	A0 5135.00	15N/3E-23	7-64	Continuous	117
Grant Line Canal at Tracy Road Bridge (103a)	B9 5300.00	18/5E-29	7-58	M	32, 100
Indian Creek near Crescent Mills (17d)	A5 4320.00	26N/9E-25	4-51	B	54, 100
Indian Slough near Brentwood (107)	B9 5279.80	1N/3E-23	9-52	M	100

^a Beginning of record

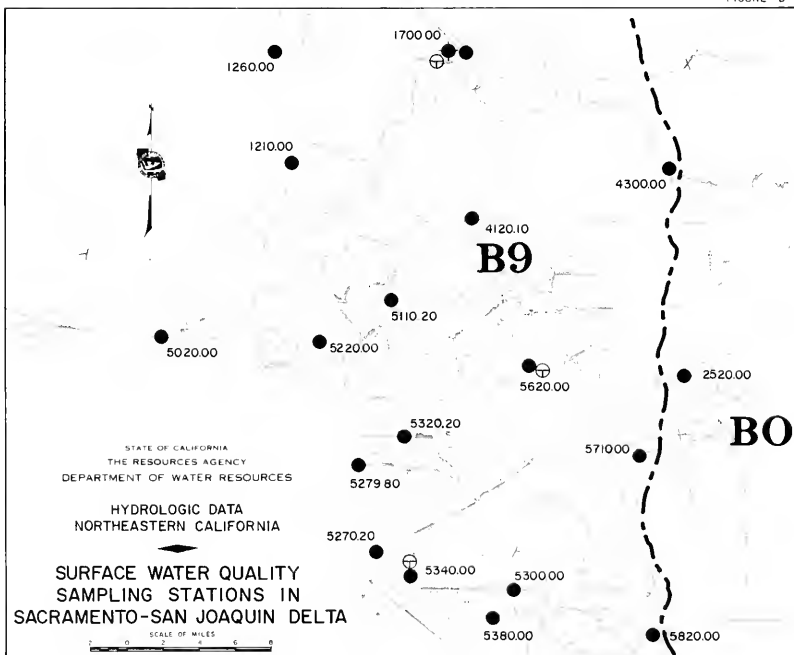
^b M-Monthly, B - Bimonthly, Q - Quarterly, S - Semiannually, A - Annually, I - Irregular

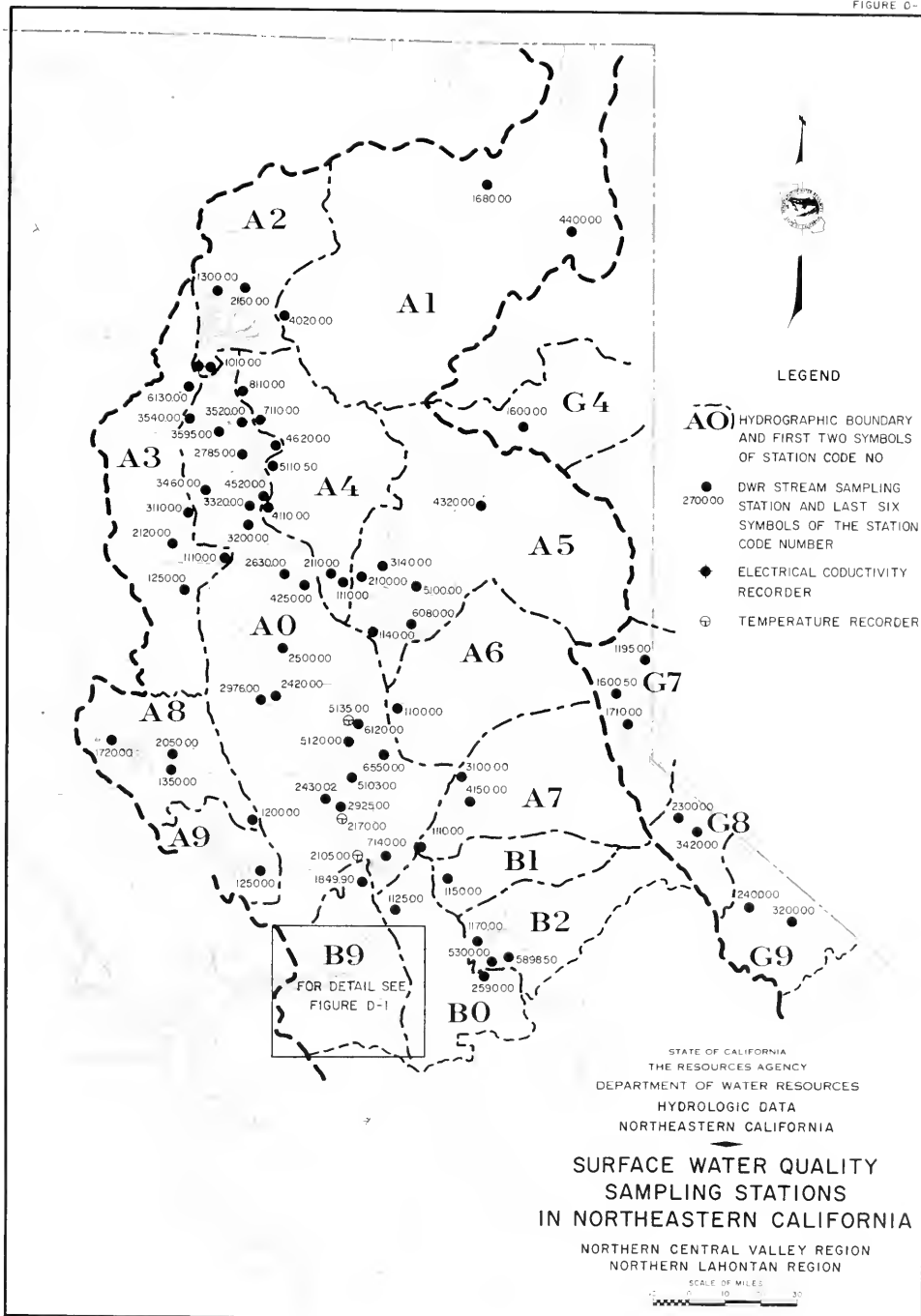
SURFACE WATER QUALITY
SAMPLING STATIONS
CENTRAL VALLEY REGION (NO. 6)

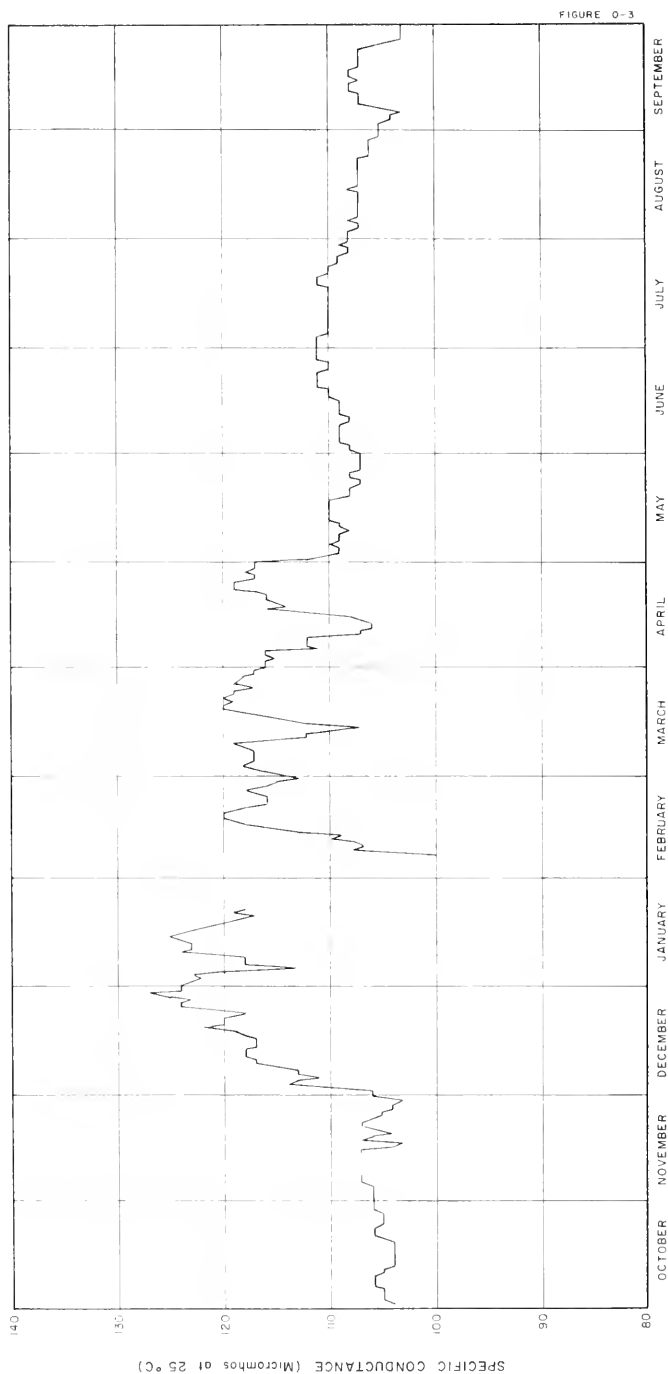
Station No.	Station Name				
A0 2105	Sacramento River at Sacramento Weir	A5 1140.00	Feather River near Oroville (19)	B9 5020.00	San Joaquin River at Antioch (28)
A0 2170	Sacramento River at Fremont Weir, Weir End	A5 2100.00	Feather River, West Branch near Yankee Hill (19d)	B9 5110.20	Old River at Mandeville Island (112)
A0 2420.00	Sacramento River at Colusa (13b)	A5 3140.00	Feather River, North Fork at Big Bar (19a)	B9 5220.00	Rock Slough near Knightsen (109)
A0 2430.02	Sacramento River above Colusa Basin Drain (14b)	A5 4320.00	Indian Creek near Crescent Mills (17d)	B9 5270.20	Italian Slough near Mouth (105)
A0 2500.00	Sacramento River at Butte City (87a)	A5 5100.00	Feather River, Middle Fork near Merrimac (19b)	B9 5279.80	Indian Slough near Brentwood (107)
A0 2630.00	Sacramento River at Hamilton City (13)	A5 6050.00	Feather River, South Fork below Ponderosa Dam (19c)	B9 5300.00	Grant Line Canal at Tracy Road Bridge (103a)
A0 2755.00	Sacramento River at Bend (12c)	A6 1100.00	Yuba River near Shafterville (21a)	B9 5320.20	Old River at Orwood Bridge (108)
A0 2925.00	Sacramento Slough near Knight Landing (15a)	A7 1110.00	American River at Shasta Dam (22a)	B9 5340.00	Old River at Clifton Court Ferry (104)
A0 2976.00	Colusa Basin Drain near Colusa (87)	A7 3100.00	American River, Middle Fork near Auburn (22b)	B9 5380.00	Old River near Tracy (103)
A0 3200.00	Thome Creek near Mouth (95b)	A7 4150.00	American River, South Fork near Lotus (22c)	B9 5620.00	San Joaquin River at Rindge Pump
A0 3320.00	Elmer Creek at Gerber (95a)	A8 1120.00	Cache Creek near Capay (90)	B9 5620.00	Stockton Ship Channel on Rindge Island (100)
A0 3460.00	Red Bank Creek near Red Bluff (98d)	A8 1350.00	Cache Creek near Lower Lake (42)	B9 5710.00	San Joaquin River at Garwood Bridge (101)
A0 3520.00	Cottonwood Creek near Cottonwood (12b)	A8 1720.00	Clear Lake at Lakeport (41)	B9 5820.00	San Joaquin River at Mossdale Bridge (102)
A0 3540.00	Cottonwood Creek below North Fork Cottonwood Creek (11a)	A8 2050.00	Cache Creek, North Fork near Lower Lake (79)		
A0 3595.00	Cottonwood Creek, South Fork above Cottonwood Creek (11b)	A9 1250.00	Potlatch Creek near Winters (81)		
A0 4250.00	Big Chico Creek at Chico (85a)	B0 1125.00	Consumes River at McConnell (9a)		
A0 4520.00	Antelope Creek near Mouth (88c)	B0 2520.00	Calaveras River at Stockton (160)		
A0 4620.00	Payne Creek near Red Bluff (98d)	B0 2590.00	Calaveras River at Jenny Lind (10a)		
A0 4103.00	Feather River at Nicolaus (20)	B1 1150.00	Consumes at Nicholson Bar (9a)		
A0 5120.00	Feather River below Shastina Bend (20a)	B2 1170.00	Nokelume River below Gomanche Dam (23a)		
A0 5135.00	Feather River at Yuba City	B2 3300.00	Calaveras River below New Susan Dam (16c)		
A0 6120.00	Yuba River at Marysville (21)	B2 3998.50	Calaveras River above New Susan Reservoir (16d)		
A0 6550.00	Bear River near Wheatland (7b)	B9 1210.00	Sacramento River at Rio Vista (16)		
A0 7140.00	American River at Sacramento (22)	B9 1260.00	Lindsey Slough near Rio Vista (110)		
A1 1020.00	Pit River near Montgomery Creek (17)	B9 1700.00	Sacramento River at Walnut Grove		
A1 1680.00	Pit River near Gandy (14a)	B9 1700.00	Delta Cross Channel near Walnut Grove (9c)		
A1 4500.00	Pit River, South Fork near Likely (18a)	B9 1804.90	Sacramento River at Freepoint (14c)		
A2 1010.00	Sacramento River at Keswick (12)	B9 4120.10	Little Potato Slough at Terenosus (9)		
A2 1050.00	Sacramento River at Delta (11)	B9 4300.00	Nokelume River at Woodbridge (23)		
A2 2150.00	McCloud River above Shasta Lake (18)				
A3 1110.00	Stony Creek below Black Butte Dam (13c)				
A3 1250.00	Stony Creek near Fruto (13f)				
A3 2420.00	Thome Creek at Paskenta (13d)				
A3 3110.00	Lider Creek near Paskenta (13e)				
A3 5130.00	Clear Creek near Lodi (10d)				
A4 1111.00	Butte Creek near Chico (7c)				
A4 2110.00	Big Chico Creek near Chico (7c)				
A4 4110.00	Mill Creek near Marysville (7)				
A4 5110.00	Antelope Creek near Red Bluff (19c)				
A4 7110.00	Rattle Creek near Cottonwood (5b)				
A4 8110.00	Go Creek near Millville (9a)				

LAHONTAN REGION (No. 6)

G4 1600.00	Susan River at Susanville (17b)
G7 1195.00	Truckee River at Farad (33)
G7 1600.50	Truckee River near Truckee (52)
G7 1710.00	Lake Tahoe at Tahoe City (38)
G8 2300.00	Carson River, West Fork at Woodfords (115a)
G8 3620.00	Carson River, East Fork near Markleville (115)
G9 2400.00	Walker River, West near Coleville (116)
G9 3200.00	Walker River, East near Bridgeport (118a)

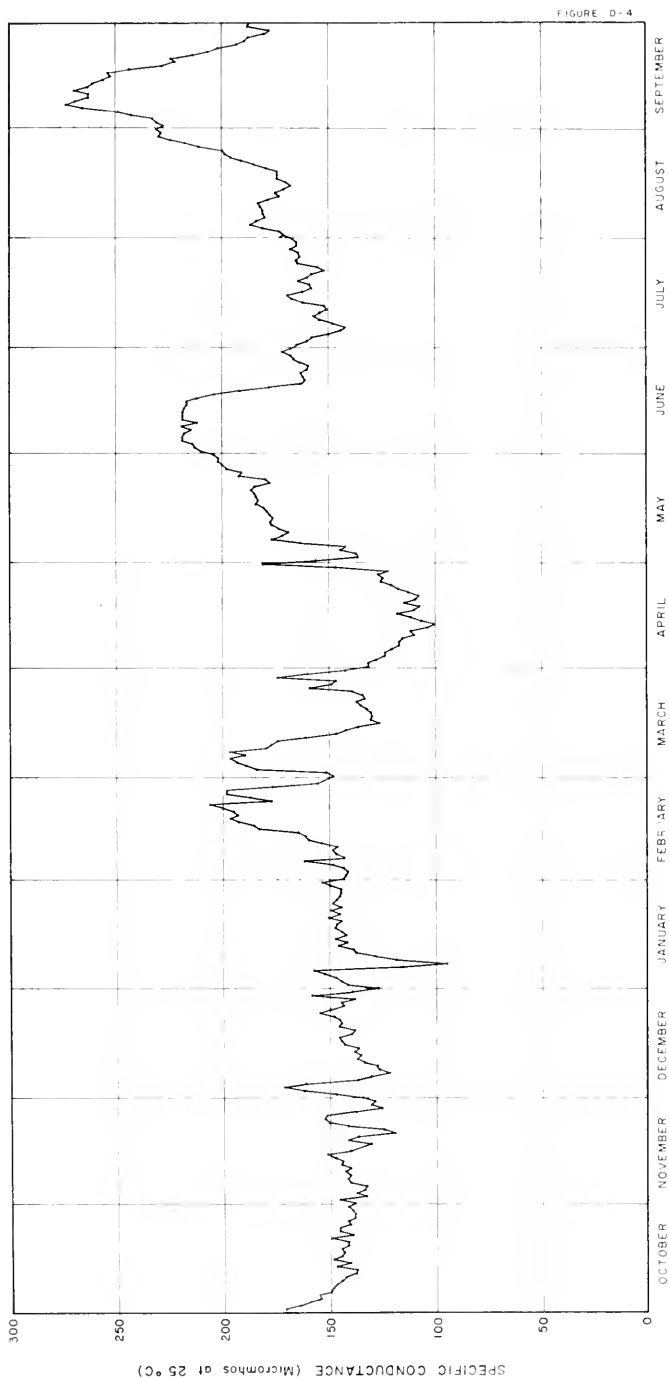






AVERAGE DAILY SPECIFIC CONDUCTANCE - SACRAMENTO RIVER AT KESWICK DAM (STA. A2 1010.00)

OCTOBER 1965 THROUGH SEPTEMBER 1966



AVERAGE DAILY SPECIFIC CONDUCTANCE - SACRAMENTO RIVER AT WALNUT GROVE (STA B9 1650.10)

OCTOBER 1965 THROUGH SEPTEMBER 1966

Table D 2

An explanation of column headings follows:

Lab - 5000 U. S. Geological Survey

5050 Department of Water Resources

G.H. - The instantaneous gage height in feet above an established datum.

Q - The instantaneous discharge measured in cubic feet per second (cfs).

DO - The dissolved oxygen content in milligrams per liter is listed first and is followed by the percent saturation.

EC - The specific conductance in micromhos at 25° Centigrade.

TDS - Gravimetric determination of total dissolved solids in milligrams per liter.

SUM - Determined by addition of analyzed constituents.

MINERAL ANALYSIS OF SURFACE WATER

STATION NAME DATE TIME	NUMBERS LAB SAMPLED	G.M. Q	NO SAT	TEMP F	PH LAR FIN	FC LAR FIN	MILLIGRAMS PER LITER										MILLIGRAMS PER LITER												
							MINERAL CONSTITUENTS IN PERCENT REACTANCE VALU										MILLIEQUIVALENT PER LITER				MILLIGRAMS PER LITER								
							CA	MG	NA	K	CO ₂	HCO ₃	SO ₄	CL	NH ₃	F	R	5102	TDS	TH									
SACRAMENTO RIVER AT COLUSA (136)																													
A02420.00 10/04/65 0945	5000 5050	43.24 4040	10.2 10.6	43 F 10.6	8.1 7.4	125	--	--	6.0 .26	--	0.0	66	--	2.3 .06	--	--	0.0	--	--	49 0									
A02420.00 11/01/65 1115	5000 5050	43.24 4220	10.1 10.1	40 F 10.1	7.9 7.4	128	--	--	6.6 .29	--	0.0	67	--	2.7 .08	2.0 .03	--	0.1	--	--	51 0									
A02420.00 12/01/65 1045	5000 5050	45.41 10700	10.6 9.5	51 F 9.5	8.2 7.3	145	--	--	7.3 .32	--	0.0	71	--	4.1 .12	--	--	0.0	--	--	58 0									
A02420.00 01/05/66 1100	5000 5050	55.08 23400	11.4 10.2	44 F 10.2	7.8 7.3	139	--	--	7.3 .32	--	0.0	69	--	3.0 .08	--	--	0.0	--	--	53 0									
A02420.00 02/08/66 0930	5000 5050	54.48 24200	11.5 9.8	47 F 9.8	8.2 7.4	146	--	--	7.1 .31	--	0.0	66	--	5.1 .14	--	--	0.1	--	--	57 3									
A02420.00 03/02/66 1100	5000 5050	45.03 9710	11.3 10.4	53 F 10.4	7.6 7.4	171	--	--	8.4 .37	--	0.0	81	--	3.3 .09	--	--	0.1	--	--	67 1									
A02420.00 04/07/66 0900	5000 5050	44.09 8410	9.7 9.4	61 F 9.4	7.9 7.4	150	--	--	7.1 .31	--	0.0	74	--	4.0 .11	--	--	0.0	--	--	60 0									
A02420.00 05/05/66 0915	5000 5050	43.42 7920	9.0 9.0	60 F 9.0	7.9 7.3	135	12 4.0 42	5.8 .48 34	7.1 .31 22	1.3 .03 2	0.0	71	7.0 .15 11	2.3 .06 4	0.7 .01 1	--	0.0	19	89 90	54 0									
A02420.00 06/09/66 1145	5000 5050	43.50 7920	9.7 10.2	65 F 10.2	8.0 7.8	134	--	--	6.9 .30	--	0.0	70	--	2.8 .08	--	--	0.0	--	--	53 0									
A02420.00 07/13/66 1310	5000 5050	45.54 10200	10.0 10.2	62 F 10.2	8.1 7.7	121	--	--	6.5 .28	--	0.0	64	--	2.3 .06	--	--	0.0	--	--	48 0									
A02420.00 08/11/66 0820	5000 5050	45.00 9940	9.4 10.2	64 F 10.2	8.0 7.4	123	--	--	6.2 .27	--	0.0	66	--	2.1 .06	--	--	0.0	--	--	49 0									
A02420.00 09/14/66 1120	5000 5050	42.55 7230	10.0 10.2	62 F 10.2	8.1 7.5	129	11 4.55 41	6.0 .49 36	6.5 .28 21	1.1 .03 2	0.0	69	7.0 .15 82	2.8 .08 11	1.0 .02 1	--	0.0	20	81 89	52 0									

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP F	PH LAR FID	FC LAR FID	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS					
						CA MG	NA K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂	SUM	TH	NCH			
SACRAMENTO RIVER ABOVE COLUSA TROUGH (14b)																					
A02430.02 10/06/65 0830	19.30 8770	9.9 99	40 F 7.4	8.2 7.4	135	--	6.7 .24	--	0.0 1.16	71 .08	--	0.0	--	--	0.0	--	54 0				
A02430.02 11/03/65 1000	19.42 8770	10.1 96	56 F 7.4	8.2 7.4	126	--	6.1 .27	--	0.0 1.10	67 .07	--	0.1	--	--	0.1	--	51 0				
A02430.02 12/01/65 0930	24.09 13600	10.8 94	50 F 7.3	8.2 7.3	126	--	6.0 .26	--	0.0 1.02	62 .08	--	0.0	--	--	0.0	--	50 0				
A02430.02 01/05/66 0925	25.59 14600	11.0 92	46 F 7.3	8.1 7.3	150	--	8.0 .35	--	0.0 1.20	73 .10	--	0.0	--	--	0.0	--	54 0				
A02430.02 02/08/66 0825	32.48 25900	11.3 97	48 F 7.4	8.2 7.4	163	--	8.4 .34	--	0.0 1.18	72 .17	--	0.1	--	--	0.1	--	40 1				
A02430.02 03/09/66 1315	21.51 9730	11.3 104	53 F 7.4	8.1 7.4	177	--	8.6 .37	--	0.0 1.36	83 .10	--	0.1	--	--	0.1	--	70 2				
A02430.02 04/07/66 1045	23.11 9570	9.3 95	42 F 7.3	8.2 7.3	144	--	6.4 .30	--	0.0 1.21	74 .10	--	0.0	--	--	0.0	--	54 0				
A02430.02 05/05/66 1045	14.80 6730	8.4 84	64 F 7.3	7.4 7.3	190	14 .70 36	7.5 .62 32	1.1 .03 2	0.0 1.38 72	84 .35 14	17 .01 9	0.0	0.0	20	0.0	124 121	66 0				
A02430.02 06/08/66 0700	14.53 8260	9.4 94	44 F 7.4	8.2 7.4	178	--	12 .52	--	0.0 1.34	82 .17	--	0.1	--	--	0.1	--	63 0				
A02430.02 07/13/66 1505	19.45 9490	9.9 104	44 F 7.7	8.1 7.7	137	--	8.1 .34	--	0.0 1.13	69 .09	--	0.0	--	--	0.0	--	52 0				
A02430.02 08/11/66 1020	19.52 9940	9.6 104	47 F 7.5	8.1 7.5	142	--	8.4 .37	--	0.0 1.18	72 .09	--	0.0	--	--	0.0	--	53 0				
A02430.02 09/14/66 1230	14.67 8840	9.8 106	47 F 7.4	7.4 7.4	167	13 .65 37	8.0 .66 37	1.1 .03 2	0.0 1.39 81	85 .12 11	9.0 .19 11	0.0	0.0	20	0.0	104 104	66 0				

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.M.	DO SAT	TEMP F	PH	EC LAR FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALU					MILLIGRAMS PER LITER			
DATE TIME	LAT SAMPLER						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	R	S102	TDS SUM
SACRAMENTO RIVER AT BUTTE CITY (87a)																			
A02500.00 10/06/65 1145	71.11 8280 5050	10.4 100	64 F	8.2 7.5	124	--	--	6.2 .27	--	0.0	67 1.10	--	2.2 .06	--	--	0.0	--	--	
A02500.00 11/03/65 1315	71.13 8090 5050	10.4 102	59 F	8.1 7.4	128	--	--	6.5 .24	--	0.0	66 1.08	--	2.0 .06	--	--	0.0	--	--	
A02500.00 12/01/65 1230	71.18 8770 5000	10.9 100	53 F	8.2 7.3	146	--	--	7.1 .31	--	0.0	70 1.15	--	4.2 .12	--	--	0.0	--	--	
A02500.00 01/05/66 1320	83.79 44500 5050	11.5 99	48 F	7.6 7.4	110	--	--	7.0 .30	--	0.0	52 .85	--	2.2 .06	--	--	0.1	--	--	
A02500.00 02/08/66 1115	77.13 23800 5050	11.4 94	44 F	8.2 7.3	150	--	--	7.2 .31	--	0.0	70 1.15	--	4.2 .12	--	--	0.1	--	--	
A02500.00 03/08/66 0915	71.93 9920 5000	11.4 103	52 F	8.0 7.4	167	--	--	8.1 .34	--	0.0	79 1.30	--	3.1 .09	--	--	0.1	--	--	
A02500.00 04/07/66 0825	71.29 8240 5000	9.9 94	54 F	8.0 7.3	148	--	--	7.1 .31	--	0.0	73 1.20	--	3.2 .09	--	--	0.0	--	--	
A02500.00 05/05/66 0825	71.21 8480 5050	9.7 94	54 F	7.4 7.4	135	12 40 43	5.8 4.8 35	6.5 2.9 20	0.9 .02 1	0.0	70 1.15 82	8.0 17 12	2.8 .08 6	0.6 .01 1	--	0.0	20	39 91	
A02500.00 06/08/66 1000	71.25 9000 5050	10.6 109	63 F	8.0 7.3	131	--	--	6.7 .24	--	0.0	69 1.13	--	2.5 .07	--	--	0.0	--	--	
A02500.00 07/13/66 1210	72.43 11300 5000	10.0 102	62 F	7.4 7.4	122	--	--	6.1 .27	--	0.0	62 1.02	--	2.0 .06	--	--	0.0	--	--	
A02500.00 08/11/66 0740	71.99 10300 5050	10.0 102	62 F	7.4 7.4	121	--	--	6.3 .27	--	0.0	64 1.05	--	2.1 .06	--	--	0.0	--	--	
A02500.00 09/14/66 1000	70.50 8440 5050	10.3 103	60 F	7.9 7.4	128	10 40 39	6.0 4.9 38	6.2 2.7 21	1.0 .03 2	0.0	68 1.12 84	6.0 17 4	2.4 .07 5	1.4 .02 2	--	0.0	19	47 45	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	NO SAT	TEMP F	PH FID	PC FID	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER			
						Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	S102	TDS SUM			
SACRAMENTO RIVER ABOVE COLUSA TROUGH (14b)																					
A02430.02 10/06/65 0830	19.30 8770	9.9 99	60 F 7.4	8.2 7.4	135	--	--	6.7 .24	--	0.0	71 1.16	--	2.9 .08	--	--	0.0	--	--	54 0		
A02430.02 11/03/65 1000	19.42 8770	10.1 96	56 F 7.4	8.2 7.4	126	--	--	6.1 .27	--	0.0	67 1.10	--	2.4 .07	--	--	0.1	--	--	51 0		
A02430.02 12/01/65 0930	24.09 13600	10.6 94	50 F 7.3	8.2 7.3	126	--	--	6.0 .24	--	0.0	62 1.02	--	2.9 .08	--	--	0.0	--	--	50 0		
A02430.02 01/05/66 0925	25.59 16400	11.0 92	46 F 7.3	8.1 7.3	150	--	--	8.0 .35	--	0.0	73 1.20	--	3.7 .10	--	--	0.0	--	--	54 0		
A02430.02 02/08/66 0825	32.48 25800	11.2 97	48 F 7.4	8.2 7.4	163	--	--	8.4 .34	--	0.0	72 1.18	--	2.2 .17	--	--	0.1	--	--	60 1		
A02430.02 03/09/66 1315	21.51 9730	11.3 104	53 F 7.4	8.1 7.4	177	--	--	8.4 .37	--	0.0	83 1.36	--	3.6 .10	--	--	0.1	--	--	70 2		
A02430.02 04/07/66 1045	23.11 9570	9.3 95	42 F 7.3	8.2 7.3	149	--	--	6.4 .30	--	0.0	74 1.21	--	3.6 .10	--	--	0.0	--	--	54 0		
A02430.02 05/05/66 1045	18.40 6730	8.4 84	64 F 7.3	7.8 7.3	190	14 .70	7.5 .32	13 .57	1.1 2	0.0	84 1.38	17 .35	4.5 .18	0.9 .01	--	0.0	20 124	66 121	66 0		
A02430.02 06/04/66 0700	18.53 4260	9.4 94	64 F 7.4	8.2 7.4	178	--	--	12 .52	--	0.0	82 1.34	--	4.0 .17	--	--	0.1	--	--	63 0		
A02430.02 07/13/66 1505	19.45 9490	9.9 104	64 F 7.7	8.1 7.7	137	--	--	8.1 .35	--	0.0	69 1.13	--	3.1 .09	--	--	0.0	--	--	52 0		
A02430.02 08/11/66 1020	19.52 9940	9.6 104	67 F 7.5	8.1 7.5	142	--	--	8.4 .37	--	0.0	72 1.18	--	3.2 .09	--	--	0.0	--	--	53 0		
A02430.02 09/14/66 1230	19.47 8840	9.8 106	67 F 7.8	7.4 7.8	167	13 .65	8.0 .37	10 .44	1.1 2	0.0	85 1.39	9.0 .19	4.2 .12	0.7 .01	--	0.0	20 104	66 108	66 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP F	PH FLD	EC FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER INS SUM																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	A	S102	TDS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
						FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
SACRAMENTO RIVER AT BUTTE CITY (87a)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP F/D	PH LAB F/D	EC LAB F/D	MINERAL CONSTITUENTS IN						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER TDS				
						CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SI0 ₂	TH	TDS	TH	NCH	
SACRAMENTO RIVER NEAR HAMILTON CITY (13)																						
A02630.00 10/04/65 1255	24.47 7836 5000	10.4 101	54 F 7.4	8.1 7.4	122	--	--	6.4 .24	--	0.0	64 1.05	--	2.5 .07	--	--	0.0	--	--	49	--	0	0
A02630.00 11/03/65 1420	24.47 8026 5000	10.4 94	55 F 7.3	7.9 7.3	124	--	--	6.7 .29	--	0.0	66 1.08	--	2.8 .08	--	--	0.0	--	--	49	--	0	0
A02630.00 12/01/65 1340	24.49 7773 5050	10.7 97	52 F 7.3	8.2 7.3	138	--	--	6.4 .30	--	0.0	69 1.13	--	4.0 .11	--	--	0.0	--	--	54	--	0	0
A02630.00 01/05/66 1420	44.45 77290 5000	11.5 96	46 F 7.2	7.3 7.2	82	--	--	3.6 .16	--	0.0	45 .74	--	1.5 .04	--	--	0.0	--	--	33	--	0	0
A02630.00 02/04/66 1230	31.06 12320 5000	11.6 97	46 F 7.3	8.0 7.3	130	--	--	6.5 .24	--	0.0	63 1.03	--	3.0 .08	--	--	0.1	--	--	51	--	0	0
A02630.00 03/04/66 1330	24.04 4747 5000	11.5 103	51 F 7.4	8.1 7.4	161	--	--	8.0 .35	--	0.0	74 1.21	--	3.3 .09	--	--	0.0	--	--	63	--	3	3
A02630.00 04/04/66 1310	24.71 7495 5000	10.0 99	53 F 7.1	8.2 7.1	138	--	--	6.6 .24	--	0.0	69 1.13	--	3.2 .09	--	--	0.1	--	--	55	--	0	0
A02630.00 05/04/66 1120	24.75 10990 5000	10.2 94	57 F 7.4	8.0 7.4	128	12 .40 45	5.1 .42 32	6.5 .24 21	1.0 .03 2	0.0	67 1.10 83	7.0 .15 11	2.0 .06 5	0.6 .01 1	--	0.0	19	87 86	51 0	0	0	
A02630.00 06/04/66 1020	24.87 4537 5000	10.4 102	53 F 7.4	7.7 7.4	127	--	--	6.6 .29	--	0.0	64 1.05	--	2.4 .07	--	--	0.0	--	--	50	--	0	0
A02630.00 07/11/66 0920	24.40 11770 5000	10.3 116	46 F 7.5	8.2 7.5	118	--	--	6.2 .27	--	0.0	63 1.03	--	2.1 .06	--	--	0.0	--	--	46	--	0	0
A02630.00 08/10/66 1110	24.40 10500 5050	10.4 99	54 F 7.4	8.1 7.4	117	--	--	5.4 .26	--	0.0	63 1.03	--	2.0 .06	--	--	0.0	--	--	46	--	0	0
A02630.00 09/14/66 0730	24.26 4915 5000	10.0 97	54 F 7.4	7.9 7.4	121	9.7 .44 39	5.5 .45 37	6.1 .27 22	1.0 .03 2	0.0	65 1.07 87	5.0 .10 4	1.8 .05 4	0.9 .01 1	--	0.0	20	76 42	46 0	0	0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	SAMPLER	G.M. Q	NO SAT	TEMP F	PH	EC LAH FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS				
							CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NH ₃	F	H	SiO ₂	SUM
SACRAMENTO RIVER AT BEND (12c)																			
402785.00 10/04/65 0900	5000 5050	2.83 4320	10.3 95	53 F	8.0 7.3	114	--	--	5.7 .25	--	0.0	61 1.00	--	1.4 .04	--	--	0.0	--	--
402785.00 11/01/65 0930	5000 5050	2.03 4730	10.3 94	52 F	8.1 7.3	118	--	--	6.1 .27	--	0.0	66 1.08	--	2.0 .06	2.0 .03	--	0.0	--	--
402785.00 11/29/65 0920	5000 5050	3.06 12000	10.4 96	50 F	7.9 7.2	117	--	--	5.6 .24	--	0.0	61 1.00	5.0 .10	2.4 .07	--	--	0.0	--	--
402785.00 01/03/66 0920	5000 5050	13700	103	48 F	8.1 7.3	133	--	--	7.4 .32	--	0.0	67 1.10	--	2.6 .07	0.7 .01	--	0.0	--	--
402785.00 02/07/66 0910	5000 5050	15900	94	45 F	7.9 7.2	113	--	--	5.4 .23	--	0.0	53 .87	--	2.3 .06	0.9 .01	--	0.0	--	--
402785.00 03/08/66 1030	5000 5050	4160	102	49 F	7.8 7.2	141	--	--	7.3 .32	--	0.0	64 1.05	--	2.0 .06	0.6 .01	--	0.0	--	--
402785.00 04/05/66 1210	5000 5050	7970	101	54 F	8.2 7.3	130	--	--	6.4 .24	--	0.0	67 1.10	--	3.0 .08	0.5 .01	--	0.1	--	--
402785.00 05/03/66 1410	5000 5050	9720	109	55 F	7.7 7.2	121	11 .65	5.0 .41	6.5 .24	1.0 .03	0.0	65 1.07	6.0 .12	1.7 .05	0.5 .01	--	0.0	19	74
402785.00 06/07/66 0800	5000 5050	10700	100	51 F	7.9 7.3	123	--	--	6.2 .27	--	0.0	64 1.05	--	2.3 .06	--	--	0.0	--	--
402785.00 07/11/66 0910	5000 5050	13200	101	52 F	8.2 7.3	117	--	--	6.2 .27	--	0.0	62 1.02	--	2.0 .06	0.8 .01	--	0.0	--	--
402785.00 08/09/66 0900	5000 5050	13000	99	53 F	7.4 7.4	115	--	--	5.7 .25	--	0.0	61 1.00	--	1.7 .05	--	--	0.0	--	--
402785.00 09/13/66 1125	5000 5050	8000	96	53 F	7.7 7.3	116	9.8 .49	5.3 .44	5.8 .25	1.0 .03	0.0	62 1.02	5.0 .10	2.0 .06	0.6 .01	--	0.0	19	72
							4.0 36	21	21	2		86	8	5	1			79	0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M.T. LAT LONG	DIRECTION SUN	TEMP F	P.H. LAB F.L.D	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
					FC LAB F.L.D	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SIO ₂	TDS SUM	TH	NCH
					SACRAMENTO SLOUGH NEAR KNIGHTS LAUNDRY (14a)															
A02925.00 10/04/65 0745	5000		7.6 64 F	8.4 7.6	508	--	--	34 1.65	--	--	6.0 .20	216 3.54	--	48 1.35	--	0.0	--	--	--	182 0
A02925.00 11/03/65 0900	5000		7.6 60 F	8.4 7.6	328	--	--	20 .47	--	--	3.0 .10	170 2.79	--	14 .39	--	0.1	--	--	--	128 0
A02925.00 04/07/66 1115	5000		8.7 67 F	8.2 7.5	197	--	--	10 .44	--	--	0.0	106 1.74	--	7.2 .20	--	0.0	--	--	--	80 0
A02925.00 05/05/66 1110	5000		6.2 70 F	7.7 7.6	439	29 1.45	20 1.36	34 1.64	1.6 1.04	0.0 2.98	182 67	20 4.2	36 1.02	36 1.23	0.6 .01	0.1	23	264 253	154 5	
A02925.00 06/08/66 0600	5000		6.9 72 F	8.4 7.6	484	--	--	38 1.65	--	--	4.0 .13	204 3.35	--	42 1.18	--	0.1	--	--	--	172 0
A02925.00 07/13/66 1435	5000		7.4 74 F	8.5 7.4	608	--	--	50 2.14	--	--	6.0 .20	246 4.03	--	63 1.78	--	0.0	--	--	--	210 0
A02925.00 08/11/66 1050	5000		6.5 76 F	8.0 8.4	557	--	--	45 1.46	--	--	0.0	256 4.20	--	48 1.35	--	0.0	--	--	--	196 0
A02925.00 09/14/66 1410	5000		6.4 76 F	7.8 8.2	935	50 2.50	39 3.21	90 3.92	1.3 .03	0.0 5.25	320 60	29 3.69	131 3.69	31 3.69	3.2 .05	0.1	31	528 531	286 24	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME SAMPLER	G.M. LAT LONG SAT	TEMP F	PH FLD FLD	EC FLD	MINERAL CONSTITUENTS IN PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS TH SUM NCH				
					CA	MG	NA	K	CO ₃	HC0 ₃	SO ₄	CL	N03	F	H	S102	TDS	TH	SUM
COLLETA THROUGH NEAR COLLETA (37)																			
402976.00 10/04/65 5050	39.15 255	4.5 95	7.0 7.4	549	30 1.50	23 1.89	6.0 2.61	2.0 1.05	7.0 2.3	194 3.25	70 1.45	30 .85	1.5 .02	--	0.1	21 342	149 342	0	
402976.00 11/03/65 5050	39.01 222	9.1 92	7.9 7.8	606	29 1.45	23 1.89	6.6 2.87	2.3 .06	0.0 3.58	218 3.58	40 1.66	35 .99	1.3 .02	--	0.2	20 342	163 344	0	
402976.00 12/01/65 5050	39.07 146	10.6 92	4.9 7.3	1040	44 2.30	38 3.12	13.6 5.92	2.8 .07	10 .33	302 4.95	177 3.64	73 2.06	3.3 .05	--	0.3	19 662	270 653	6	
402976.00 01/05/66 5050	44.62 1449	10.8 93	4.4 7.5	607	24 1.40	14 1.15	7.4 3.33	3.2 .08	0.0 2.25	137 2.25	102 2.12	49 1.38	5.1 .04	--	0.2	12 344	127 359	15	
402976.00 02/03/66 5050	43.19 1104	9.9 85	4.4 7.6	717	32 1.60	23 1.49	8.7 3.74	3.7 .09	0.0 3.31	202 2.50	125 3.35	48 1.35	4.4 .07	--	0.2	15 472	176 437	11	
402976.00 03/02/66 5050	44.41 135	10.1 94	5.6 7.2	1530	62 3.09	56 4.60	21.0 9.14	1.8 .05	10 .33	356 5.44	320 6.86	130 3.67	1.1 .02	--	0.5	15 1040	384 941	74	
402976.00 04/07/66 5050	39.21 254	4.4 94	6.6 7.4	491	20 1.50	21 1.73	4.4 3.43	3.0 .08	0.0 3.41	208 2.31	111 1.13	40 1.13	2.2 .04	--	0.1	16 440	163 413	0	
402976.00 05/05/66 5050	43.50 1122	7.2 74	6.7 7.8	484	24 1.20	17 1.40	5.6 2.44	2.5 .06	0.0 2.76	168 1.52	73 1.52	22 .62	2.1 .03	--	0.1	13 298	124 292	0	
402976.00 06/08/66 5050	42.03 744	7.0 91	7.3 7.4	534	22 1.16	21 1.73	6.2 2.76	1.0 .03	0.0 3.21	196 3.21	73 1.52	27 .76	1.5 .02	--	0.2	14 302	143 314	0	
402976.00 07/13/66 5050	40.98 546	8.0 92	7.3 7.4	549	32 1.40	23 1.49	6.4 2.74	0.9 .02	0.0 3.94	240 1.56	75 1.07	38 1.07	1.8 .03	0.4	0.2	15 364	-- 364	176 0	
402976.00 08/11/66 5050	41.66 649	7.5 88	7.4 7.7	555	30 1.50	24 1.97	6.1 2.61	1.2 .03	4.0 .13	236 3.87	56 1.16	26 .73	1.5 .02	--	0.2	18 337	336 337	172 0	
402976.00 09/16/66 5050	41.34 677	8.0 91	7.2 7.4	570	32 1.60	22 1.81	6.7 2.44	1.6 .04	0.0 3.80	232 1.33	64 1.33	30 .45	2.0 .03	--	0.1	18 344	170 340	0	

COLLEGE TROUGH NEAR COLLEGE (37)

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME SAMPLER	G.M. J	DO SAT	TEMP F	PH LWR FLD	FC LWR FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	S102	TDS SUM	TH NCH
THOMAS CREEK NEAR MOUTH (95b)																			
A03200.00 12/13/65 1345 5050	50	12.1 106	49 F	8.5 8.0	353	--	--	8.1 .35	--	4.0 .13	144 2.36	--	4.0 .17	--	--	0.0	--	--	170 46
A03200.00 01/17/66 1145 5050	50	12.6 102	43 F	8.2 7.8	216	--	--	4.9 .21	--	0.0	113 1.85	--	2.1 .06	--	--	0.0	--	--	114 22
A03200.00 02/10/66 1135 5050	40	12.1 102	46 F	8.2 8.0	331	--	--	7.2 .31	--	0.0	158 2.59	--	3.5 .10	--	--	0.1	--	--	158 29
A03200.00 03/02/66 1130 5050	40	11.4 100	46 F	8.3 7.9	300	--	--	7.2 .31	--	3.0 .10	133 2.18	--	3.5 .10	--	--	0.0	--	--	142 28
A03200.00 06/12/66 1220 5050	150	11.2 106	55 F	8.1 7.7	144	--	--	3.1 .13	--	0.0	71 1.16	--	0.5 .01	--	--	0.0	--	--	66 8
A03200.00 05/02/66 1200 5050	40	8.6 92	44 F	8.0 8.0	182	26 1.30 70	4.9 .40 21	3.5 .15 1	0.9 .02	0.0	90 1.48 80	16 .33 14	1.5 .04 2	0.8 .01	--	0.0	8.8 116 107	85 11	
A03200.00 06/02/66 1115 5050	25	8.6 100	71 F	8.3 7.9	221	--	--	5.0 .22	--	3.0 .10	139 2.28	--	2.7 .08	--	--	0.0	--	--	138 19
A03200.00 07/04/66 0930 5050	2	9.6 109	71 F	8.4 7.0	408	--	--	7.7 .33	--	4.0 .13	197 3.23	--	5.0 .14	--	--	0.0	--	--	206 38

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG SAMPLED	NO SAT	TEMP	PH		MINERAL CONSTITUENTS IN			MILLIGRAMS PER LITER					MILLIGRAMS PER LITER					TDS SUM	TH NCH
				LAH FLO	FC FLO	CA	MG	NA	K	CO3	HCO3	SO4	CL	N03	F	H	SI02			
				ELDER CREEK AT GEMER (95a)																
403320.00 12/13/65 1325	4.34 24	12.5 114	52 F	8.5 8.2	429	--	--	16 .70	--	6.0 .20	200 3.28	--	26 .73	--	--	0.0	--	--	--	194 20
403320.00 01/17/66 1125	5.02 122	12.5 104	44 F	8.4 8.1	284	--	--	8.6 .37	--	3.0 .10	171 2.80	--	7.6 .21	--	--	0.0	--	--	--	153 8
403320.00 02/10/66 1155	5.04 145	12.1 105	44 F	8.6 8.2	358	--	--	9.7 .42	--	9.0 .30	181 2.97	--	9.2 .26	--	--	0.1	--	--	--	173 10
403320.00 03/02/66 1145	4.93 106	12.9 115	50 F	8.5 8.3	349	--	--	11 .44	--	6.0 .20	190 3.12	--	11 .31	--	--	0.0	--	--	--	176 10
403320.00 04/12/66 1240	5.05 130	11.0 117	65 F	8.4 8.2	211	--	--	6.6 .29	--	2.0 .07	110 1.80	--	5.3 .15	--	--	0.0	--	--	--	97 4
403320.00 05/02/66 1220	4.57 43	9.2 104	74 F	8.4	287	27 1.35 44	16 1.32 43	9.1 .40 13	0.9 .02 1	4.0 .13 4	147 2.41 77	10 .21 7	14 .39 12	0.7 .01	--	0.0	14	141 168	133 6	
403320.00 06/02/66 1130	14	11.0 127	74 F	8.7 8.4	390	--	--	14 .41	--	11 .37	182 2.98	--	24 .68	--	--	0.0	--	--	--	182 15

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.H. Q	DO SAT	TEMP F	PH L.A.R F.L.D	EC L.A.R F.L.D	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER TOS SUM				
						CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SI0 ₂	T ₀₅	NCH	
						RED BANK CREEK NEAR RED BLUFF (88a)														
A03460.00 12/02/65 1330	4.56 11	11.3 103	51 F	8.6 8.1	542	--	--	17 .74	--	16 .53	24.0 3.94	--	14 .39	--	--	0.0	--	--	270 47	
A03460.00 01/04/66 1500	5.52 454	11.1 104	53 F	8.2 8.1	291	--	--	8.4 .37	--	0.0	14.8 2.43	--	1.9 .05	--	--	0.0	--	--	134 13	
A03460.00 02/09/66 0830	4.40 62	12.5 101	42 F	8.4 8.2	468	--	--	13 .57	--	5.0 .17	24.3 3.99	--	3.1 .09	--	--	0.0	--	--	236 28	
A03460.00 03/08/66 0900	4.12 45	11.5 104	50 F	8.6 8.2	490	--	--	16 .70	--	10 .33	23.6 3.87	--	5.0 .14	--	--	0.0	--	--	245 36	
A03460.00 04/06/66 0920	3.90 13	10.0 104	65 F	8.3 8.1	513	--	--	17 .74	--	4.0 .13	26.0 4.26	--	5.0 .17	--	--	0.0	--	--	256 37	
A03460.00 05/04/66 0755	3.72 3	8.4 90	65 F	8.2 8.0	520	56 2.79 44	28 2.30 39	17 .74 13	1.2 .03 1	0.0	27.4 4.49 77	51 1.06 14	3.6 .27 5	0.4 .01	--	0.0	15	312 312	254 30	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP F	P.H. F	EC F	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER				MILLIGRAMS PER LITER PERCENT REACTANCE VAL							MILLIGRAMS PER LITER			
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NH3	F	H	S102	TDS SUM	TH NCH	
COTTONWOOD CREEK NEAR COTTONWOOD (12b)																			
A03520.00 10/07/65 0840	6.26 89	9.3 97	64 F 7.3	197	--	--	7.3 .32	--	2.0 .07	103 1.69	--	4.3 .12	--	0.0	--	--	86 0		
A03520.00 11/04/65 0900	6.25 87	10.5 104	60 F 7.4	221	--	--	8.3 .34	--	2.0 .07	118 1.94	--	7.2 .20	--	0.0	--	--	97 0		
A03520.00 12/13/65 1200	6.02 84	12.2 105	47 F 7.6	258	--	--	1.0 .44	--	2.0 .07	117 1.92	--	12 .34	--	0.0	--	--	112 13		
A03520.00 01/17/66 1015	10.0 80	12.3 100	44 F 7.4	217	--	--	7.7 .34	--	0.0	124 2.03	--	4.6 .16	--	0.0	--	--	110 9		
A03520.00 02/10/66 0905	10.0 80	12.0 100	45 F 7.6	254	--	--	9.1 .40	--	0.0	125 2.05	--	3.9 .17	--	0.0	--	--	107 5		
A03520.00 03/02/66 1200	87.0 80	12.0 103	47 F 7.4	254	--	--	9.4 .43	--	0.0	126 2.07	--	4.8 .14	--	0.0	--	--	113 10		
A03520.00 04/13/66 1135	94.2 80	11.2 104	57 F 7.6	186	--	--	6.0 .26	--	0.0	97 1.59	--	2.3 .06	--	0.0	--	--	83 4		
A03520.00 05/02/66 1335	41.0 80	9.9 122	74 F 7.7	220	25 1.25 53	9.4 7.7 33	7.1 .31 13	0.8 .02 1	0.0	122 2.00 84	11 .23 10	3.2 .15 6	0.7 .01	--	0.0	16 133 135	101 1		
A03520.00 06/02/66 1200	25.0 80	11.0 117	64 F 7.4	207	--	--	7.4 .32	--	2.0 .07	110 1.80	--	4.2 .15	--	0.0	--	--	92 0		
A03520.00 07/04/66 1200	10.0 80	10.6 135	94 F 7.7	232	--	--	8.7 .34	--	0.0	128 2.10	--	5.8 .16	--	0.0	--	--	103 0		
A03520.00 08/12/66 1500	53 80	10.3 131	42 F 7.4	200	--	--	7.4 .34	--	0.0	111 1.82	--	3.2 .09	0.9 .01	--	0.1	--	84 0		
A03520.00 09/01/66 0940	51 80	10.2 150	71 F 7.3	194	14 .90 43	9.8 8.1 39	7.4 .34 14	1.4 .04 2	0.0	110 1.80 88	7.0 .15 7	4.2 .09 4	0.7 .01	--	0.0	22 124	86 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION DATE TIME	NUM- BER SAMPLER	G.M. Q	NO SAT	TEMP	P.H. L.A. FID	F.C. L.A. FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				TDS SUM	TH NCH	
							CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SIO ₂				
COTTONWOOD CREEK BELOW NORTH FORK COTTONWOOD CREEK (11a)																						
A03540.00 10/07/65 0915	5000 5050	1.5	9.0 99	47 F	8.6 7.7	322	--	--	11 .44	--	7.0 .23	160 2.62	--	16 .45	--	--	0.0	--	--	--	148 6	
A03540.00 11/04/65 0935	5000 5050	2.0	9.4 100	40 F	8.5 7.7	209	--	--	11 .44	--	4.0 .13	147 2.41	--	16 .45	--	--	0.0	--	--	--	133 6	
A03540.00 12/13/65 1600	5000 5050	7.5	12.1 102	45 F	8.3 7.8	216	--	--	7.6 .33	--	1.0 .03	107 1.75	--	6.5 .18	--	--	0.0	--	--	--	95 6	
A03540.00 01/05/66 1510	5000 5050	1000	12.1 99	43 F	8.0 7.6	158	--	--	5.6 .24	--	0.0	72 1.18	--	2.2 .06	--	--	0.0	--	--	--	66 7	
A03540.00 02/04/66 1415	5000 5050	500	11.7 100	45 F	8.0 7.6	161	--	--	6.2 .27	--	0.0	75 1.23	--	2.2 .06	--	--	0.0	--	--	--	67 6	
A03540.00 03/02/66 1320	5000 5050	350	12.5 104	47 F	8.3 7.7	227	--	--	7.5 .33	--	2.0 .07	116 1.90	--	2.2 .06	--	--	0.0	--	--	--	105 7	
A03540.00 04/13/66 1210	5000 5050	350	11.2 107	55 F	8.4 7.4	169	--	--	4.7 .20	--	2.0 .07	89 1.46	--	1.2 .03	--	--	0.0	--	--	--	79 3	
A03540.00 05/03/66 1050	5000 5050	40	9.3 99	44 F	8.2 7.9	209	22 1.10 49	11 .90 40	5.6 .24 11	0.8 .02 1	0.0 0.0	112 1.84 85	10 .21 10	3.6 1.0 5	0.9 .01	--	0.0	18	124 127	100 8		
A03540.00 06/03/66 1015	5000 5050	50	9.9 104	43 F	8.2 7.4	223	--	--	6.1 .27	--	0.0 0.0	116 1.90	--	4.4 .12	--	--	0.0	--	--	--	97 2	
A03540.00 07/07/66 1100	5000 5050	20	9.5 117	74 F	8.6 7.9	278	--	--	8.9 .39	--	7.0 .23	146 2.39	--	4.8 .25	--	--	0.0	--	--	--	132 1	
A03540.00 08/02/66 0810	5000 5050	10	8.2 92	71 F	8.2 7.6	312	23 1.45 43	17 1.40 42	11 .44 14	1.3 .03 1	0.0 0.0	168 2.76 82	9.0 .19 6	15 .42 12	0.6 .01	--	0.0	20	189 185	142 4		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	G.M.T. DAY	NO. SAT	TEMP F	PH FLO	FC FLO	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS SUM					
							CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SiO ₂	TH	
SOUTH FORK COTTONWOOD CREEK ABOVE COTTONWOOD CREEK (11b)																				
403595.00 10/07/65 0815	5000 5050	.1	6.0 6.4	6.5 F 7.3	8.5 7.3	366	--	--	15 .65	--	4.0 .13	162 2.66	--	22 .62	--	--	0.1	--	--	157 18
403595.00 11/04/65 0840	5000 5050	1.0	7.7 7.9	6.2 F 7.3	8.5 7.3	368	--	--	15 .65	--	4.0 .13	140 2.30	--	32 .90	--	--	0.1	--	--	154 33
403595.00 12/13/65 1245	5000 5050	30	12.5 10.7	4.7 F 4.0	8.4 8.0	391	--	--	14 .43	--	2.0 .07	149 2.44	--	28 .79	--	--	0.0	--	--	160 35
403595.00 01/17/66 1045	5000 5050	40	13.0 10.7	4.4 F 4.0	8.2 8.0	279	--	--	12 .52	--	0.0	146 2.39	--	12 .34	--	--	0.0	--	--	136 17
403595.00 02/10/66 0845	5000 5050	70	12.4 10.1	4.3 F 4.0	8.4 8.0	400	--	--	14 .78	--	5.0 .17	174 2.85	--	14 .39	--	--	0.1	--	--	171 20
403595.00 03/02/66 1230	5000 5050	60	12.0 10.4	4.4 F 4.1	8.5 8.1	390	--	--	12 .43	--	5.0 .17	166 2.72	--	12 .34	--	--	0.0	--	--	168 24
403595.00 04/13/66 1110	5000 5050	100	11.3 10.7	5.5 F 7.9	8.4 7.9	205	--	--	8.1 .35	--	2.0 .07	99 1.62	--	5.1 .14	--	--	0.0	--	--	90 6
403595.00 05/03/66 1125	5000 5050	60	9.4 10.1	6.6 F 7.9	8.2 7.9	226	28 1.40	7.1 .58	8.4 .74	0.8 .02	0.0	110 1.80	14 .24	4.3 .23	0.5 .01	--	0.0	12	138 133	99 9
403595.00 06/02/66 1210	5000 5050	60	9.4 10.1	6.6 F 8.0	8.0 8.0	231	--	--	9.5 .41	--	0.0	114 1.87	--	4.5 .24	--	--	0.0	--	--	98 5
403595.00 07/04/66 0830	5000 5050	5.0	8.0 9.5	7.5 F 7.6	8.4 7.6	245	--	--	13 .57	--	3.0 .10	130 2.13	--	16 .45	--	--	0.0	--	--	120 9

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAR SAMPLER	G.H.	DO SAT	TEMP FLD	PH LAB FLD	EC LAB FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
							CA	MG	NA	K	CO3	HCO3	504	CL	NO3	F	H	SI02	TDS SUM	TH NCH
BIG CHICO CREEK AT CHICO (95a)																				
A04250.00 10/06/65 1350	5000 5050	3.72 6.0	10.0 105	64 F 7.8	8.4 211	--	--	13 .57	--	2.0 .07	106 1.74	--	10 .28	--	--	0.1	--	--	76 0	
A04250.00 11/03/65 1500	5000 5050	3.42 1.0	10.6 103	57 F 7.9	8.3 212	--	--	14 .61	--	1.0 .03	108 1.77	--	9.5 .27	--	--	0.1	--	--	78 0	
A04250.00 12/01/65 1420	5000 5050	4.11 37	12.3 105	47 F 7.5	8.2 143	--	--	8.2 .36	--	0.0 1.21	74 1.21	--	5.6 .16	--	--	0.0	--	--	54 0	
A04250.00 01/05/66 1500	5000 5050	5.57 298	12.0 104	48 F 7.2	58 7.2	--	--	2.7 .12	--	0.0 .52	32 1.02	--	1.1 .03	--	--	0.0	--	--	23 0	
A04250.00 02/08/66 1300	5000 5050	4.60 129	12.2 102	45 F 7.5	8.0 92	--	--	4.9 .21	--	0.0 .77	47 1.02	--	1.6 .05	--	--	0.1	--	--	36 0	
A04250.00 03/08/66 1400	5000 5050	4.32 72	11.8 109	53 F 7.8	8.1 118	--	--	6.4 .28	--	0.0 1.02	62 1.02	--	2.9 .08	--	--	0.0	--	--	46 0	
A04250.00 04/04/66 1340	5000 5050	4.28 64	10.4 111	62 F 7.8	8.1 122	--	--	6.8 .30	--	0.0 1.07	65 1.07	--	3.6 .10	--	--	0.0	--	--	48 0	
A04250.00 05/04/66 1140	5000 5050	4.03 26	9.5 99	63 F 7.9	8.0 162	14 .70	6.6 .54	9.7 .42	0.9 .02	0.0 1.38	84 1.02	5.0 .18	6.4 .11	0.9 .01	--	0.2	32	111 117	42 0	
A04250.00 06/09/66 0950	5000 5050	3.83 11	9.1 104	71 F 8.2	8.2 192	--	--	13 .57	--	0.0 1.62	99 1.62	--	9.0 .25	--	--	0.1	--	--	71 0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	DO SAT	TEMP F	PH		EC LAR FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUF				MILLIGRAMS PER LITER TDS SUM					
				LAR FLD	LAR FLD		CA	MG	NA	K	CO ₃	HC0 ₃	SO ₄	CL	NO ₃	F	R	S102		
				ANTELOPE CREEK NEAR MOUTH (88c)																
404520.00 10/04/65 1350	10	9.5 99	63 F	8.1 7.5	205	--	--	--	14 .70	--	0.0	73 1.20	--	16 .45	--	--	0.5	--	--	44
404520.00 11/03/65 1355	10	11.1 104	55 F	8.2 7.6	213	--	--	--	14 .74	--	0.0	75 1.23	--	27 .76	--	--	0.5	--	--	60
404520.00 12/13/65 1430	15	11.4 101	46 F	7.6 7.3	180	--	--	--	9.2 .40	--	0.0	86 1.41	--	7.5 .21	--	--	0.1	--	--	72
404520.00 01/17/66 1250	3.0	11.0 92	45 F	7.9 7.1	169	--	--	--	7.8 .34	--	0.0	100 1.64	--	5.5 .16	--	--	0.0	--	--	91
404520.00 02/10/66 1015	15	11.7 98	45 F	7.9 7.2	131	--	--	--	5.4 .24	--	0.0	72 1.18	--	3.0 .08	--	--	0.1	--	--	54
404520.00 03/02/66 1055	15	12.2 102	45 F	8.0 7.2	117	--	--	--	5.1 .22	--	0.0	66 1.09	--	1.3 .04	--	--	0.0	--	--	49
404520.00 04/12/66 1140	15	10.2 103	55 F	7.4 7.2	133	--	--	--	8.1 .35	--	0.0	51 .84	--	4.0 .11	--	--	0.2	--	--	45
404520.00 05/02/66 1115	10	8.4 84	44 F	7.7 7.1	188	--	--	--	4.4 .44	11	2.8 .07	77 1.26	16 .33	7.4 .21	1.6 .03	--	0.3	33	159	67
404520.00 06/02/66 1010	5.0	7.3 74	62 F	7.5 7.1	233	--	--	--	12 .52	--	0.0	89 1.46	--	11 .31	--	--	0.3	--	--	90

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	DO SAT	TEMP F/D	PH LA9 FLD	FC LA9 FLD	MINERAL CONSTITUENTS IN			MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	SIO2	TDS SUM	
FAYTES CREEK NEAR RED BLUFF (884)																		
A04620.00 10/06/65 1240	5000 5050	9.3 101	67 F 7.4	8.4 7.4	228	--	--	1.4 .74	--	2.0 .07	113 1.85	--	15 .42	--	--	0.4	--	
A04620.00 11/03/65 1245	5000 5050	9.4 96	61 F 7.4	8.2 7.4	233	--	--	1.9 .93	--	0.0 1.89	115 1.89	--	14 .39	--	--	0.4	--	
A04620.00 12/15/65 1130	5000 5050	10.7 95	50 F 7.4	8.0 7.4	229	--	--	1.7 .74	--	0.0 1.87	114 1.87	--	14 .39	--	--	0.3	--	
A04620.00 01/17/66 1400	5000 5050	11.2 100	50 F 7.3	7.8 7.3	164	--	--	1.3 .57	--	0.0 1.54	94 1.54	--	4.6 .24	--	--	0.2	--	
A04620.00 02/09/66 1410	5000 5050	11.7 103	44 F 7.3	8.0 7.3	128	--	--	7.8 .34	--	0.0 1.12	68 1.12	--	3.2 .09	--	--	0.2	--	
A04620.00 03/02/66 0945	5000 5050	12.0 100	45 F 7.4	8.0 7.4	131	--	--	8.7 .34	--	0.0 1.16	71 1.16	--	3.8 .11	--	--	0.1	--	
A04620.00 04/12/66 1030	5000 5050	10.1 101	54 F 7.4	8.2 7.4	149	--	--	1.3 .57	--	0.0 1.59	97 1.59	--	7.8 .22	--	--	0.2	--	
A04620.00 05/02/66 1005	5000 5050	10.4 104	61 F 7.3	8.0 7.3	201	14 .70	8.0 .66	1.5 .04	0.0 1.74	106 1.74	2.0 .04	10 .28	1.4 .02	--	--	0.4	42 148	
A04620.00 06/02/66 0900	5000 5050	9.6 94	61 F 7.3	7.9 7.3	221	--	--	1.4 .70	--	0.0 1.80	110 1.80	--	14 .39	--	--	0.3	--	
A04620.00 07/06/66 0745	5000 5050	9.4 101	66 F 7.1	8.3 7.1	223	--	--	1.4 .74	--	2.0 .07	107 1.75	--	14 .39	--	--	0.3	--	
A04620.00 09/07/66 0755	5000 5050	6.7 71	64 F 7.2	7.4 7.2	247	14 .70	10 .82	1.6 .91	0.0 .04	114 1.87	1.0 .02	18 .51	2.2 .04	--	--	0.5	48 166	
						28 33	37 37	2		77 77	1	21					172 2	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP	PH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				F	H	S102	TDS SUM	TH NCH
				LAH FLD	FC FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL							
				A O 5103.00 FEATHER RIVER AT NICOLAUS (20)																
A05103.00 10/04/65 0730	22.92 2400	9.3 98	-- 65	8.1 7.3	110	--	--	4.0 .17	--	0.0 1.03	.63	--	1.1 .03	--	.00	--	--	46	0	
A05103.00 11/05/65 1530	23.53 3120	10.6 106	-- 60	7.7 7.5	113	--	--	4.3 .14	--	0.0 1.05	.64	--	1.2 .03	--	.10	--	--	48	0	
A05103.00 12/03/65 1500	24.02 5740	12.2 104	-- 47	8.0 7.2	105	--	--	4.1 .14	--	0.0 1.00	.61	--	1.5 .04	--	.00	--	--	44	0	
A05103.00 01/07/66 0635	31.83 16700	11.1 94	-- 47	7.5 7.3	90	--	--	3.7 .14	--	0.0 .66	.40	--	2.4 .07	--	.00	--	--	34	1	
A05103.00 02/11/66 1545		12.2 102	-- 46	8.1 7.3	115	--	--	4.4 .21	--	0.0 .95	.58	--	2.5 .07	--	.00	--	--	47	0	
A05103.00 03/10/66 1515	25.24 5040	11.6 108	-- 54	7.4 7.3	110	--	--	4.3 .14	--	0.0 .45	.58	--	1.8 .05	--	.00	--	--	47	0	
A05103.00 04/07/66 1515	28.52 10410	11.0 109	-- 59	7.2 7.3	74	--	--	2.4 .12	--	0.0 .62	.34	--	1.1 .03	--	.00	--	--	31	0	
A05103.00 05/04/66 1315	25.16 5320	9.8 102	-- 64	7.4 7.3	70	7.4 .37 5.2	2.6 .21 3.0	2.5 .11 1.5	0.7 .02 .3	0.0 .44 .67	.36 .06 .9	3.0 .02 .3	0.6 .02 .3	0.4 .01 1	--	.00	11	54	29	0
A05103.00 06/09/66 1415	20.00	9.4 120	-- 84	8.1 8.3	110	--	--	3.2 .17	--	0.0 .45	.58	--	1.2 .03	--	.00	--	--	48	1	
A05103.00 07/14/66 1430	19.05	9.2 111	-- 78	7.4 8.4	124	--	--	4.7 .20	--	0.0 1.12	.68	--	2.0 .06	--	.00	--	--	55	0	
A05103.00 08/11/66 0730	18.61	7.4 88	-- 76	7.4 7.7	136	--	--	8.0 .33	--	0.0 1.28	.78	--	2.8 .08	--	.00	--	--	58	0	
A05103.00 09/15/66 1500		10.1 117	-- 74	8.1 8.3	141	14 .70 4.5	7.3 .60 .38	5.2 .24 .15	1.0 .03 .2	--	.77 1.26 .43	3.6 .07 .5	2.4 .07 .5	6.8 .11 7	--	.00	--	96	65	2

TABLE D 2
MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	O.D. SAT	TEMP	PH	EC LAH FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALU				MILLIGRAMS PER LITER TDS SUM				
						CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NH ₃	F	H	TH	
A O 5120.00 FEATHER RIVER BELOW SHANGHAI BEND (20a)																		
A05120+00 10/08/65 0815	34.80 2320	9.2 97	-- 65	8.2 7.3	110	--	--	4.4 .14	--	0.0	.63 1.03	--	1.2 .03	--	--	.00	--	46 0
A05120+00 11/05/65 1300	35.28 2820	10.6 106	-- 60	8.1 7.5	115	--	--	4.4 .21	--	0.0	.66 1.04	--	0.8 .02	--	--	.00	--	49 0
A05120+00 12/03/65 1415	35.67 3270	12.2 102	-- 46	8.0 7.3	108	--	--	4.1 .14	--	0.0	.59 .97	--	1.6 .05	--	--	.00	--	45 0
A05120+00 01/07/66 0930	41.33 12800	12.3 103	-- 46	7.5 7.3	83	--	--	3.7 .16	--	0.0	.40 .66	--	1.2 .03	--	--	.00	--	34 1
A05120+00 02/11/66 1500	35.96 3610	12.6 104	-- 45	8.0 7.3	114	--	--	4.6 .20	--	0.0	.60 .94	--	2.2 .06	--	--	.00	--	47 0
A05120+00 03/10/66 1430	36.65 6580	11.7 107	-- 53	8.1 7.3	111	--	--	4.4 .14	--	0.0	.54 .97	--	1.2 .03	--	--	.00	--	47 0
A05120+00 04/07/66 1445	40.01 10100	11.2 108	-- 57	7.4 7.3	69	--	--	2.7 .12	--	0.0	.36 .59	--	0.8 .02	--	--	.01	--	30 1
A05120+00 05/05/66 1245	36.70 4570	10.2 104	-- 62	7.7 7.3	69	4.2 .46 6.3	1.7 .14 1.9	2.6 1.1 1.5	0.6 .02 3	0.0	.36 .59 .87	3.0 .06 .4	0.4 .02 3	0.5 .01 1	--	.01	12 48	30 1
A05120+00 06/09/66 1330	32.34	10.0 115	-- 73	8.1 8.1	113	--	--	3.4 .17	--	0.0	.54 .97	--	1.1 .03	--	--	.00	--	48 0
A05120+00 07/14/66 1345	31.99	9.4 110	-- 75	7.7 7.9	123	--	--	4.4 .14	--	0.0	.64 1.13	--	2.4 .08	--	--	.00	--	54 0
A05120+00 08/11/66 0800	31.82	7.2 86	-- 77	7.7 7.3	174	--	--	5.6 .24	--	0.0	.74 1.21	--	2.9 .08	--	--	.00	--	58 0
A05120+00 09/15/66 1415	9.5 109	9.5 109	-- 73	8.0 7.9	136	12 .60 4.0	7.4 .64 4.3	5.0 .22 1.5	1.0 .03 2	0.0	.76 1.25 .88	4.1 .04 .6	2.4 .07 5	0.5 .01 1	--	.00	--	98 70

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.H. LAT SAMPLE	W SAT	TEMP F/D	PH F/D	EC F/D	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER					MILLIGRAMS PER LITER PERCENT REACTION VALUE					MILLIGRAMS PER LITER					
						YUBA RIVER AT MARYSVILLE (21)	CO ₃	Ca	Mg	Na	K	NO ₃	CL	SO ₄	F	H	SiO ₂	TDS	TH		
A06120.00 11/05/65 1400	60.14 14	10.6 112	-- 65	8.0 7.5	119	--	--	3.3 .14	--	0.0	62	--	1.2 1.02	--	--	.00	--	--	56	5	
A06120.00 01/07/66 1015	62.87 1670	12.7 105	-- 45	7.7 7.5	100	--	--	3.3 .14	--	0.0	50	--	1.2 .82	--	--	.00	--	--	44	3	
A06120.00 03/10/66 0945	61.92 688	11.9 105	-- 50	8.0 7.3	98	--	--	3.1 .13	--	0.0	47	--	.9 .77	--	--	.00	--	--	42	4	
A06120.00 05/05/66 1130	62.10 850	10.6 107	-- 61	7.5 7.3	66	--	--	1.4 .21	0.6 3	0.0	34	0.4 .02	0.4 .03	0.3 .5	--	--	.00	11	52	29	1
A06120.00 07/14/66 1230	59.57	9.5 114	-- 77	7.4 7.7	124	--	--	3.0 .13	--	0.0	62	--	2.0 1.02	--	--	.00	--	--	58	7	
A06120.00 09/15/66 1300		9.5 112	-- 75	8.1 7.9	134	--	--	3.4 .44	0.7 .15	0.0	70	0.4 .20	1.2 .03	1.4 .02	--	.00	--	100	62	5	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLE	TEMP °C	PH	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER					MILLIGRAMS PER LITER					TDS SUM	TH NCH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				FC LAH FLD	BEAR RIVER NEAR WHEATLAND (78)				PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
A 6550.00																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	NO SAT	TEMP	PH	FC L&H FLD	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS SUM					
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	H	SIO2				
A O 7140.00 AMERICAN RIVER AT SACRAMENTO (22)																					
407140.00 10/04/65 1300	18.35	9.5 103	-- 67	7.4 7.1	56	--	--	1.4 .04	--	0.0	26 .43	--	1.3 .04	--	--	.00	--	--	21 0		
407140.00 11/02/65 1545	18.08	10.2 102	-- 60	7.4 7.1	51	--	--	2.6 .11	--	0.0	24 .39	--	1.4 .04	--	--	.00	--	--	20 1		
407140.00 11/30/65 1430	19.09	10.3 98	-- 56	7.7 7.1	62	--	--	2.4 .10	--	0.0	28 .46	--	1.8 .05	--	--	.00	--	--	24 1		
407140.00 01/05/66 1345	18.06	11.9 102	-- 48	7.7 7.3	66	--	--	2.7 .12	--	0.0	28 .46	--	1.9 .05	--	--	.00	--	--	24 1		
407140.00 02/07/66 1415	18.08	11.9 102	-- 48	7.4 7.1	75	--	--	3.4 .15	--	0.0	32 .52	--	2.3 .06	--	--	.00	--	--	28 2		
407140.00 03/04/66 0800	18.05	11.3 100	-- 50	7.5 7.1	80	--	--	3.3 .14	--	0.0	34 .56	--	2.7 .08	--	--	.00	--	--	30 2		
407140.00 04/04/66 0800	18.22	10.6 98	-- 54	7.7 7.3	75	--	--	2.4 .12	--	0.0	32 .52	--	2.4 .07	--	--	.01	--	--	30 4		
407140.00 05/03/66 0730	17.43	9.5 98	-- 63	7.2 7.3	75	--	2.1 .34	3.6 .17	0.8 .02	0.0	31 .51	5.0 .10	2.1 .06	1.8 .03	--	.00	9.3 46	28 48	3 3		
407140.00 06/10/66 0800	17.51	9.1 95	-- 65	7.4 7.1	71	--	--	3.2 .14	--	0.0	30 .49	--	1.9 .05	--	--	.00	--	--	26 2		
407140.00 07/15/66 0700	18.33	9.2 95	-- 63	7.1 7.1	65	--	--	2.7 .12	--	0.0	29 .46	--	2.9 .08	--	--	.00	--	--	26 2		
407140.00 08/04/66 1145	18.35	9.3 102	-- 68	6.7 7.3	60	--	--	2.4 .10	--	0.0	31 .51	--	2.0 .06	--	--	.00	--	--	24 0		
407140.00 09/14/66 1400		9.5 105	-- 69	7.7 7.1	71	--	1.8 .35	2.4 .15	0.7 .12	0.0	31 .51	2.3 .07	2.5 .10	3.0 .05	--	.00	--	--	55 35	25 0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER			G.M.	DO SAT	TEMP F	PH LAH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TDS SUM	TH NCH
DATE TIME	LAT SAMPLED	CA					MG	NA	K	CO3	HCO3	SO4	CL	N03	F	H	SI02			
PIT RIVER NEAR MONTGOMERY CREEK (17)																				
A11020.00 10/07/65 1230	5000 5050	9.7 100	59 F	8.3 7.8	--	--	11 .44	--	1.0 .03	88 1.44	--	3.0 .08	--	--	0.0	--	--	56 0		
A11020.00 11/04/65 1240	5000 5050	9.4 95	54 F	8.2 7.5	--	--	11 .44	--	0.0 1.49	91 1.49	--	3.2 .09	--	--	0.1	--	--	56 0		
A11020.00 12/14/65 0945	5000 5050	12.0 109	44 F	8.0 7.4	--	--	11 .44	--	0.0 1.49	91 1.49	--	3.1 .09	--	--	0.0	--	--	58 0		
A11020.00 01/18/66 0945	5000 5050	12.1 100	42 F	7.8 7.2	--	--	8.1 .35	--	0.0 1.25	76 1	--	2.0 .06	--	--	0.0	--	--	50 0		
A11020.00 02/04/66 1020	5000 5050	12.6 107	44 F	8.1 7.4	--	--	8.4 .37	--	0.0 1.25	76 1.25	--	2.6 .07	--	--	0.0	--	--	49 0		
A11020.00 04/19/66 0920	5000 5050	10.5 94	51 F	7.7 7.1	--	--	6.5 .24	--	0.0 1.08	66 1.08	--	0.8 .02	--	--	0.1	--	--	44 0		
A11020.00 05/04/66 1015	5000 5050	10.5 102	54 F	8.0 7.4	9.8 .49 42	4.3 .35 30	6.2 .30 25	1.4 .04 3	0.0 1.08 .95	66 1.08 2	1.0 .02 3	1.2 .03 1	0.6 .01 1	--	0.0	25	84 83	42 0		
A11020.00 06/04/66 1350	5000 5050	10.4 107	59 F	8.2 7.9	--	--	7.4 .32	--	0.0 1.13	69 1.13	--	1.4 .04	--	--	0.0	--	--	45 0		
A11020.00 07/05/66 0815	5000 5050	11.0 117	62 F	8.2 8.2	--	--	9.4 .41	--	0.0 1.28	78 1.28	--	2.1 .06	--	--	0.0	--	--	50 0		
A11020.00 08/04/66 1430	5000 5050	9.8 103	64 F	8.1 8.2	--	--	9.3 .40	--	0.0 1.26	77 1.26	--	2.4 .07	--	--	0.0	--	--	48 0		
A11020.00 09/08/66 1020	5000 5050	10.0 104	64 F	7.6 8.1	10 .50 35	5.7 .47 33	9.3 .24	2.1 .05 4	0.0 1.30 1	79 .02 92	1.0 .02 1	2.4 .07 5	1.4 .02 1	--	0.1	31	102 102	48 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. SAMPLER	DO SAT	TEMP F/D	PH F/D	EC F/D	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER						MILLIGRAMS PER LITER EQUIVALENT PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER TDS H S102 SUM			
						CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	S102	TDS			
						PIT RIVER NEAR CANYE (17a)															
A11680.00 10/05/65 1620	2.45 77 5050	9.3 102	54.5 7.9	8.5 7.9	279	--	--	2.5 1.13	--	5.0 .17	147 2.41	--	5.5 .16	--	--	0.1	--	--	--	97 0	
A11680.00 11/02/65 1600	2.45 91 5050	10.2 105	50.5 8.1	8.5 8.1	274	--	--	2.6 1.13	--	4.0 .13	150 2.46	--	6.2 .17	--	--	0.2	--	--	--	82 0	
A11680.00 12/01/65 1200	2.42 73 5050	13.0 104	35.5 7.9	8.0 7.9	270	--	--	2.7 1.17	--	0.0 2.30	140 2.30	--	9.0 .25	--	--	0.1	--	--	--	81 0	
A11680.00 01/18/66 1350	2.72 97 5050	11.7 94	33.5 7.5	7.9 7.5	245	--	--	3.0 1.31	--	0.0 2.62	160 2.62	--	10 .28	--	--	0.1	--	--	--	93 0	
A11680.00 02/08/66 1730	2.41 126 5050	11.2 92	34.5 7.4	7.9 7.4	279	--	--	2.4 1.22	--	0.0 2.31	141 2.31	--	3.7 .25	--	--	0.1	--	--	--	79 0	
A11680.00 03/23/66 1225	2.47 145 5050	10.2 98	45.5 7.7	8.1 7.7	232	--	--	2.2 .96	--	0.0 1.94	118 1.94	--	7.4 .18	--	--	0.2	--	--	--	72 0	
A11680.00 04/19/66 1130	3.92 142 5050	9.7 97	44.5 7.4	7.4 7.4	227	--	--	1.9 .83	--	0.0 2.07	126 2.07	--	3.1 .09	--	--	0.0	--	--	--	74 0	
A11680.00 05/04/66 1310	2.25 12 5050	4.4 105	43.5 8.5	7.8 8.5	263	21 1.05	8.4 .25	21 .91	4.3 .11	0.0 2.33	142 2.33	14 .29	1.4 .19	1.0 7	--	0.0	19	142	145	87 0	
A11680.00 06/04/66 1035	2.47 70 5050	9.1 94	44.5 7.4	8.1 7.4	312	--	--	3.1 1.35	--	0.0 2.495	140 2.495	--	4.5 .13	--	--	0.1	--	--	--	100 0	
A11680.00 07/05/66 1035	2.52 40 5050	8.7 104	46.5 8.2	7.7 8.2	334	--	--	3.5 1.52	--	0.0 3.13	191 3.13	--	6.0 .17	--	--	0.1	--	--	--	101 0	
A11680.00 08/15/66 1400	41 5050	9.4 133	75.5 8.2	8.2 8.2	309	--	--	2.9 1.26	--	0.0 2.82	172 2.82	--	4.6 .19	2.5 .04	--	0.2	--	--	--	96 0	
A11680.00 09/04/66 0740	2.20 7 5050	7.4 83	40.5 8.1	8.2 8.1	324	24 1.20	11 .90	3.7 1.31	5.3 .14	0.0 2.90	177 2.90	14 .33	8.2 .23	1.8 .03	--	0.1	30	231	213	105 0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.H. Q	OO SAT	TEMP F	PH LAR FID	EC LAB FLO	MINERAL CONSTITUENTS IN			MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER			TH NCH		
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B		S102	TDS SUM
SOUTH FORK PT RIVER NEAR LIKELY (18a)																			
A14400.00 10/06/65 0810 5050	2.13 33	9.9 94	46 F	8.1 7.7	106	--	--	5.6 .24	--	0.0	65 1.07	--	0.5 .01	--	--	0.0	--	--	42 0
A14400.00 11/03/65 0820 5050	2.07 32	10.9 104	43 F	8.2 7.5	100	--	--	5.0 .22	--	0.0	60 .98	--	0.4 .01	--	--	0.0	--	--	40 0
A14400.00 12/14/65 1340 5050	2.18 41	12.9 106	33 F	8.0 7.7	112	--	--	5.6 .24	--	0.0	68 1.12	--	0.6 .02	--	--	0.0	--	--	44 0
A14400.00 01/19/66 0910 5050	2.36 28	12.7 104	33 F	7.9 7.4	97	--	--	5.0 .22	--	0.0	62 1.02	--	0.4 .01	--	--	0.0	--	--	43 0
A14400.00 02/09/66 0845 5050	2.29 32	12.5 102	33 F	8.1 7.4	106	--	--	5.3 .23	--	0.0	62 1.02	--	0.6 .02	--	--	0.1	--	--	41 0
A14400.00 03/24/66 1010 5050	2.63 93	11.6 110	43 F	8.2 8.0	130	--	--	8.6 .37	--	0.0	73 1.20	--	1.2 .03	--	--	0.0	--	--	47 0
A14400.00 04/19/66 1355 5050	2.41 63	11.0 111	48 F	8.0 8.4	86	--	--	4.2 .18	--	0.0	50 .82	--	0.3 .01	--	--	0.0	--	--	34 0
A14400.00 05/04/66 1515 5050	2.84 120	8.6 101	60 F	7.9 8.1	123	12 4.0	4.1 .34	7.0 .30	3.1 .08	0.0	72 1.18	3.0 .06	0.8 .02	0.8 .01	--	0.0	29	126 95	47 0
A14400.00 06/09/66 0930 5050	2.45 144	9.2 104	60 F	8.2 8.2	145	45 26	8.7 .38	6 23	0.0	86 1.41	--	1.2 .03	--	--	--	0.0	--	--	57 0
A14400.00 07/05/66 1220 5050	2.04 30	8.6 115	72 F	8.4 8.5	152	--	--	1.0 .44	--	2.0 .07	85 1.39	--	1.3 .04	--	--	0.0	--	--	58 0
A14400.00 08/15/66 1210 5050	2.6 26	8.4 103	64.5 F	8.4 8.4	213	--	--	1.6 .70	--	2.0 .07	110 1.80	--	4.6 .13	1.5 .02	--	0.1	--	--	75 0
A14400.00 09/07/66 1210 5050	1.76 12	8.0 104	73 F	8.1 8.4	170	14 4.0	6.0 .49	11 .21	4.5 .12	0.0	96 1.57	6.0 .12	1.5 .04	1.4 .02	--	0.0	35	138 126	60 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	NO SAT	TEMP F	PH LAR FLD	PC LAR FLD	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO ₃	HC0 ₃	504	CL	NO ₃	F	R	5102	TDS SUM	TH NCH	
						SACRAMENTO RIVER AT KESWICK (12)														
A21010.00 10/04/65 1015	12.10 4360	9.2 84	51 F 7.4 7.2	107	--	--	5.1 .22	--	0.0	58 .95	4.0 .04	1.4 .04	--	--	0.0	--	--	--	42 0	
A21010.00 11/01/65 1015	11.76 7650	9.5 84	52 F 8.1 7.1	108	--	--	5.5 .24	--	0.0	61 1.00	4.0 .04	1.4 .04	--	--	0.0	--	--	--	47 0	
A21010.00 11/29/65 1025	4.33 3750	9.1 85	53 F 8.0 7.0	103	--	--	4.6 .20	--	0.0	56 .92	4.0 .04	1.5 .04	--	--	0.0	--	--	--	41 0	
A21010.00 01/03/66 1045	10.0 11400	10.0 79	40 F 8.2 7.2	126	--	--	7.3 .32	--	0.0	68 1.12	5.0 .10	2.0 .06	--	--	0.0	--	--	--	47 0	
A21010.00 02/07/66 1015	4750 5050	10.7 90	45 F 7.4 7.0	101	--	--	4.5 .20	--	0.0	51 .84	6.0 .12	1.5 .04	--	--	0.0	--	--	--	39 0	
A21010.00 03/02/66 1145	4650 5050	12.4 104	46 F 7.9 6.8	113	--	--	5.4 .25	--	0.0	55 .90	8.0 .17	1.0 .03	--	--	0.0	--	--	--	46 1	
A21010.00 04/05/66 1110	5000 5050	12.5 110	44 F 8.1 7.1	116	--	--	6.0 .24	--	0.0	61 1.00	7.0 .15	1.8 .05	--	--	0.1	--	--	--	45 0	
A21010.00 05/03/66 1240	9000 5050	11.9 107	50 F 7.4 7.1	111	9.8 4.9 4.2	4.7 3.9 3.4	5.7 .25 .22	1.0 .03 3	0.0	58 .95 85	6.0 .14 1.1	1.4 .04 4	0.8 0.01 1	--	0.0	18 74 76	74 76 0	44 0		
A21010.00 06/07/66 1000	10200 5050	11.3 100	49 F 8.0 7.2	113	--	--	5.5 .24	--	0.0	60 .98	3.0 .06	1.5 .04	--	--	0.0	--	--	--	45 0	
A21010.00 07/11/66 1015	14200 5050	10.5 95	50 F 7.7 7.2	113	--	--	6.2 .27	--	0.0	60 .98	5.0 .10	1.6 .05	--	--	0.0	--	--	--	45 0	
A21010.00 08/11/66 0745	13200 5050	9.8 84	50 F 7.9 7.2	109	--	--	5.2 .23	--	0.0	60 .98	--	1.5 .04	0.7 .01	--	0.1	--	--	--	44 0	
A21010.00 09/13/66 1010	7800 5050	10.1 92	51 F 8.0 7.1	107	9.2 4.6 4.2	5.0 4.1 3.7	4.9 .21 1.9	0.9 .02 2	0.0	58 .95 86	5.0 .10 9	1.4 .04 4	0.6 0.01 1	--	0.0	18 69 73	69 73 0	44 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.P.M.	DO	TEMP	PH	EC	MILLIGRAMS PER LITER										MILLIGRAMS PER LITER			
DATE	LAB						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	5102	TOS	
TIME	SAMPLED	U	SAT	F	FLD	FLD	LAB	FLD	LAB	FLD	LAB	FLD	LAB	FLD	LAB	FLD	LAB	FLD	LAB	
SACRAMENTO RIVER AT DELTA (11)																				
021300.00	5000	3.72	10.4	53 F	82.0	1560	--	--	11	--	0.0	80	--	7.4	--	0.2	--	0.0	550	
10/04/65	5000	191	103		8.1				.44			1.31		.21					485	
021300.00	5000	3.74	11.3	44 F	8.2	155	--	--	11	--	0.0	82	--	7.3	--	.01	--	--	40	
11/01/65	5000	197	101		8.1				.44			1.34		.21					0	
021300.00	5000	5.46	12.4	43 F	8.1	100	--	--	4.2	--	0.0	55	--	1.8	--	0.0	--	--	43	
11/28/65	5000	1100	104		7.3				.14			.90		.05					0	
021300.00	5000	5.12	13.3	37 F	8.0	100	--	--	5.0	--	0.0	52	--	2.9	--	0.0	--	--	40	
01/03/66	5000	944	102		7.4				.22			.85		.08					0	
021300.00	5000	6.94	12.3	43 F	7.4	31	--	--	3.3	--	0.0	42	--	1.5	--	0.0	--	--	34	
02/07/66	5000	944	103		7.3				.14			.69		.04					0	
021300.00	5000	7.53	12.1	46 F	7.9	80	--	--	3.4	--	0.0	42	--	0.7	--	0.0	--	--	34	
03/08/66	5000	3200	106		7.2				.15			.69		.02					0	
021300.00	5000	7.50	12.0	44 F	8.1	74	--	--	2.2	--	0.0	42	--	0.8	--	0.1	--	--	34	
06/08/66	5000	3250	102		7.2				.10			.69		.02					0	
021300.00	5000	5.41	11.4	44 F	7.8	73	4.0	5.7	2.5	0.3	0.0	42	4.0	0.5	0.1	0.1	15	51	34	
06/03/66	5000	1440	102		7.3		.20	.47	.11	.01		.69	.08	.01				53	0	
1015	5000						25	59	14	1		88	10	1						
021300.00	5000	4.70	10.4	54 F	8.0	107	--	--	5.1	--	0.0	58	--	2.5	--	0.0	--	--	43	
06/07/66	5000	541	107		7.4				.22			.95		.07					0	
021300.00	5000	4.00	10.0	44 F	8.2	136	--	--	8.7	--	0.0	73	--	5.2	--	0.0	--	--	51	
07/11/66	5000	245	110		8.2				.34			1.20		.15					0	
021300.00	5000	3.73	9.4	73.5 F	8.2	149	--	--	1.0	--	0.0	78	--	6.2	--	0.0	--	--	53	
08/08/66	5000	194	112		8.2				.44			1.28		.17					0	
021300.00	5000	3.49	10.5	60.0 F	8.2	153	8.4	7.7	11	1.3	0.0	78	3.0	7.4	--	0.1	30	108	52	
09/13/66	5000	184	109		8.4		.42	.63	.44	.03		1.28	.06	.21		.01		108	0	
0745	5000						27	40	31	2		.82		.13		1				

MINERAL ANALYSIS OF SURFACE WATER

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	G.M.T. UT	NO. SAT	TEMP F/°C	PH L/M F/M	FC L/M F/M	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER							MILLIGRAMS PER LITER PERCENT REACTANCE VALUE							MILLIGRAMS PER LITER TDS				
							CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂	TA	TDS	Σ				
McCloud River Above Shasta Lake (18)																									
422150.00 10/04/65 1155	5000 5050		11.21 101	44 F 101	8.2 7.4	95	--	--	4.7 .20	--	0.0	54 .89	--	0.8 .02	--	0.2	--	--	--	36 0					
422150.00 11/01/65 1200	5000 5050		11.14 103	44 F 103	8.0 7.5	95	--	--	5.0 .22	--	0.0	54 .89	--	0.9 .03	--	0.0	--	--	--	37 0					
422150.00 11/29/65 1200	5000 5050		11.20 107	45 F 107	8.0 7.6	95	--	--	4.2 .14	--	0.0	51 .84	--	0.9 .03	--	0.0	--	--	--	38 0					
422150.00 01/03/66 1210	5000 5050		13.1 103	39 F 103	7.9 7.4	96	--	--	3.2 .17	--	0.0	51 .84	--	0.7 .02	--	0.0	--	--	--	41 0					
422150.00 02/07/66 1140	5000 5050		12.1 103	44 F 103	8.1 7.3	87	--	--	5.6 .24	--	0.0	44 .72	--	0.8 .02	--	0.0	--	--	--	36 0					
422150.00 03/07/66 0945	5000 5050		12.4 108	45 F 108	8.0 7.2	101	--	--	3.4 .17	--	0.0	56 .92	--	0.3 .01	--	0.0	--	--	--	44 0					
422150.00 04/08/66 1130	5000 5050		11.1 102	50 F 102	8.1 7.2	95	--	--	3.0 .13	--	0.0	52 .85	--	0.3 .01	--	0.0	--	--	--	42 0					
422150.00 05/03/66 1130	5000 5050		10.0 106	41 F 106	7.9 7.2	112	14 40 44	24 20 17	3.5 .15 .13	0.3 .01 1	0.0	65 1.07 .89	6.0 .12 10	0.4 .01 1	0.2	--	0.0	18	74 70	50 0					
422150.00 06/07/66 1235	5000 5050		10.2 99	54 F 99	8.2 7.7	108	--	--	4.3 .14	--	0.0	62 1.02	--	0.6 .02	--	0.0	--	--	--	46 0					
422150.00 07/07/66 1340	5000 5050		9.2 106	43 F 106	7.4 8.1	110	--	--	4.7 .20	--	0.0	64 1.05	--	0.9 .03	--	0.0	--	--	--	46 0					
422150.00 08/12/66 0820	5000 5050		10.0 106	42 F 106	8.2 7.8	111	--	--	5.2 .23	--	--	65 1.07	--	1.2 .03	0.6 .01	--	0.0	--	--	47 0					
422150.00 09/13/66 0830	5000 5050		10.3 100	54 F 100	7.3 7.4	110	12 40 52	36 30 26	5.0 .22 19	1.2 .03 3	0.0	64 1.05 .91	3.0 .06 5	0.9 .03 3	1.0 .02 2	--	0.0	28	91 46	45 0					

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT	LONG SAT	TEMP F	PH FLO	EC FLO	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER						MILLIGRAMS PER LITER PERCENT REACTANCE VALUE						MILLIGRAMS PER LITER			
						CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂	TDS	TH	SUM	NCH
						STONY CREEK BELOW BLACK BUTTE DAM (13c)															
A31110.00 10/07/65 0925	3.18 12.8	10.0 10.8	66 F 8.1	8.5 8.1	341	--	--	13 .57	--	6.0 .20	172 2.82	--	12 .34	1.8 .03	--	0.2	--	--	152 1		
A31110.00 11/04/65 1130	2.48 61	11.0 117	65 F 8.1	8.5 8.1	362	--	--	14 .61	--	5.0 .17	187 3.07	--	14 .39	2.7 .04	--	0.2	--	--	167 5		
A31110.00 01/04/66 1120	6.52 28.0	13.4 110	44 F 8.1	8.1 8.1	258	--	--	10 .44	--	0.0 1.77	108 1.77	--	13 .37	1.4 .02	--	0.0	--	--	104 16		
A31110.00 02/09/66 1140	4.85 625	12.0 102	46 F 8.2	8.2 7.9	283	--	--	13 .57	--	0.0 2.03	124 2.03	--	17 .48	1.9 .03	--	0.2	--	--	113 12		
A31110.00 03/08/66 1145	2.22 24	13.1 115	49 F 8.3	8.3 8.2	311	--	--	15 .65	--	2.0 .07	134 2.20	--	15 .42	--	--	0.2	--	--	127 14		
A31110.00 04/06/66 1215	3.26 141	13.3 132	59 F 8.5	8.5 8.3	305	--	--	14 .61	--	3.0 .10	134 2.20	--	16 .45	0.7 .01	--	0.1	--	--	127 12		
A31110.00 05/04/66 1020	3.34 155	9.7 100	62 F 8.0	8.2 8.0	288	30 1.50 50	11 .90 30	13 .57 19	0.9 .02 1	0.0 2.18 74	133 .37 13	18 .37 13	13 .37 13	0.4 .01	--	0.1	7.8	168 159	119 10		
A31110.00 06/08/66 1200	4.62 547	10.6 118	69 F 8.4	8.4 7.8	287	--	--	12 .52	--	4.0 .13	130 2.13	--	12 .34	--	--	0.1	--	--	121 8		
A31110.00 07/13/66 0835	4.33 436	8.9 103	73 F 8.5	8.5 7.7	302	--	--	14 .61	--	5.0 .17	142 2.33	--	14 .39	1.3 .02	--	0.0	--	--	130 5		
A31110.00 08/10/66 1000	3.88 348	8.9 106	76 F 7.9	7.9 7.9	318	--	--	14 .61	--	0.0 2.66	162 2.66	--	14 .39	--	--	0.1	--	--	136 3		
A31110.00 09/13/66 1445	3.10 112	8.2 91	69 F 7.9	8.2 7.9	330	31 1.55 45	15 1.23 36	15 .65 19	1.2 .03 1	0.0 2.84 81	173 .25 7	12 .39 11	14 .39 11	1.6 .03	--	0.2	9.4	183 184	139 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STONY CREEK NEAR FRUITO (134)										MILLIGRAMS PER LITER										MILLIGRAMS PER LITER			
STATION NUMBER DATE TIME		LAT LONG	G.M.T. SAT	NO TEMP	PW FIN		FC L4H FLD		MINERAL CONSTITUENTS IN					MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
									CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	H	SI02	TDS SUM		
A31250.00 10/01/65 0900	5000 5050	3.47 311	10.5 107	6.0 F	8.4	345	--	--	13 .57	--	7.0 .23	177 2.90	--	13 .37	1.7 .03	--	0.2	--	--	156 0			
A31250.00 11/01/65 0915	5000 5040	3.26 132	12.0 113	5.4 F	8.4	424	--	--	20 .87	--	4.0 .13	214 3.51	--	22 .62	2.9 .05	--	0.4	--	--	190 8			
A31250.00 12/01/65 0930	5000 5090	2.47 57	11.7 91	4.1 F	8.4	535	--	--	26 1.13	--	5.0 .17	140 2.62	--	34 1.07	0.4 .01	--	0.0	--	--	224 85			
A31250.00 01/03/66 0930	5000 5070	3.30 132	15.5 121	4.0 F	8.4	476	--	--	23 1.00	--	3.0 .10	150 2.46	--	36 1.02	0.5 .01	--	0.0	--	--	188 60			
A31250.00 02/01/66 0930	5000 5070	5.10 950	14.3 120	4.2 F	8.0	324	--	--	20 .87	--	0.0 1.90	116 1.90	--	24 .68	1.9 .03	--	0.1	--	--	118 23			
A31250.00 03/01/66 0930	5000 5070	3.46 336	15.0 121	4.2 F	8.3	305	--	--	15 .65	--	1.0 .03	131 2.15	--	12 .34	0.8 .01	--	0.1	--	--	126 17			
A31250.00 04/01/66 0930	5000 5060	5.17 994	12.4 122	5.4 F	8.2	174	--	--	5.7 .25	--	0.0 1.34	82 1.34	--	4.4 .12	0.6 .01	--	0.1	--	--	76 9			
A31250.00 05/02/66 0930	5000 5070	4.30 465	3.5 94	5.4 F	8.0	207	27 1.35 63	5.2 .43 20	7.4 .32 15	1.0 .03 1	0.0 1.61 79	98 .31 15	15 6	4.5 .13	0.2	--	0.0	8.8	126 117	89 9			
A31250.00 06/01/66 0900	5000 5060	4.24 434	3.4 94	5.7 F	8.4	262	--	--	11 .44	--	4.0 .13	123 2.02	--	12 .34	--	--	0.1	--	--	110 3			
A31250.00 07/01/66 0900	5000 5050	4.13 242	4.5 91	6.5 F	8.5	298	--	--	13 .57	--	4.0 .13	144 2.36	--	12 .34	0.9 .01	--	0.1	--	--	120 0			
A31250.00 08/12/66 0930	5000 5060	4.31 470	4.0 94	4.7 F	8.5	204	--	--	13 .57	--	4.0 .13	156 2.56	--	12 .34	--	--	0.1	--	--	132 0			
A31250.00 09/01/66 0915	5000 5060	3.04 352	9.0 101	6.0 F	8.4	321	27 1.35 60	17 1.40 41	1.0 .03 14	1.0 2.0	2.0 .07	169 2.77 79	12 .25 7	14 .39	0.4 .01	--	0.3	10	180 181	138 0			

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP F	PH F/D	FC LAK F/D	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER					MILLIGRAMS PER LITER								
						CA	MG	NA	K	PERCENT REACTANCE VALUE					F	H	SI02	TDS SUM	TH NCH
										CO3	HCO3	SO4	CL	NO3					
THOMAS CREEK NEAR PASADENA (134)																			
A32120.00 10/07/65 1025	3.83 8.0	10.2 114	70 F 8.2	8.3 8.2	522	--	--	13 .57	--	2.0 .07	176 2.89	--	20 .56	1.3 .02	--	0.1	--	--	247 99
A32120.00 11/04/65 1230	3.85 9.2	10.3 113	66 F 8.3	8.3 8.3	520	--	--	14 .70	--	2.0 .07	156 2.56	--	24 .68	2.0 .03	--	0.1	--	--	242 111
A32120.00 12/02/65 1120	4.56 66	12.0 105	47 F 7.9	8.4 7.9	328	--	--	8.2 .36	--	4.0 .13	134 2.20	--	4.0 .17	0.2	--	0.0	--	--	155 39
A32120.00 01/06/66 1230	7.25 2950	12.5 103	43 F 8.1	8.1 8.1	164	--	--	3.0 .13	--	0.0	74 1.21	--	0.9 .03	0.5 .01	--	0.1	--	--	75 15
A32120.00 02/09/66 1045	4.93 300	12.7 102	41 F 7.9	8.5 7.9	281	--	--	6.8 .30	--	4.0 .13	132 2.16	--	3.4 .10	0.3	--	0.1	--	--	134 20
A32120.00 03/08/66 1055	5.17 420	12.1 103	45 F 7.9	8.1 7.9	223	--	--	5.3 .23	--	0.0	109 1.79	--	1.4 .04	--	--	0.1	--	--	104 15
A32120.00 04/04/66 1105	5.92 1020	11.1 104	52 F 7.7	8.2 7.7	115	--	--	2.6 .11	--	0.0	61 1.00	--	0.8 .02	0.3	--	0.1	--	--	53 3
A32120.00 05/04/66 0915	5.32 490	10.0 99	57 F 7.6	8.1 7.6	131	19 95	3.0 .25	3.0 .13	0.6 .02	0.0	66 1.08	11 .23	0.7 .02	0.3	--	0.0	8.2	87 78	60 4
A32120.00 06/08/66 1250	4.23 45	8.3 102	77 F 8.1	8.3 8.1	242	--	--	5.1 .22	--	2.0 .07	112 1.84	--	3.0 .08	--	--	0.0	--	--	113 18
A32120.00 07/13/66 0745	3.69 21	9.6 109	69 F 8.2	8.5 8.2	367	--	--	8.5 .37	--	6.0 .20	149 2.44	--	9.0 .25	1.1 .02	--	0.0	--	--	178 46
A32120.00 08/10/66 0925	3.43 6.6	9.4 117	78 F 8.4	8.5 8.4	408	--	--	11 .43	--	3.0 .10	140 2.30	--	14 .39	--	--	0.0	--	--	191 71
A32120.00 09/13/66 1350	3.55 4.9	10.9 130	74 F 8.4	8.4 8.4	425	48 2.40	16 1.32	13 .57	1.3 .03	2.0 .07	109 1.79	92 1.91	20 .56	1.2 .02	--	0.1	12	308 259	186 93

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	NO SAT	TEMP F	PH LAP FID	EC LAP FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER			
						CA	MG	NA	K	CO ₃				HCO ₃				SO ₄	CL	NO ₃	F	H	5102	TDS SUM	TH NCH				
										CO ₃	CO ₃	CO ₃	CO ₃	HCO ₃	HCO ₃	HCO ₃	HCO ₃												
ELDER CREEK NEAR PARCENTWA (13e)																													
433110.00 10/07/65 1145	1.20 4.4	9.9 113	71 F	8.6 8.3	744	--	--	60	--	10	217	--	123	--	--	0.1	--	--	--	268	54								
433110.00 11/02/65 1350	1.22 9.3	10.5 111	64 F	8.7 8.4	723	--	--	54	--	16	208	--	117	--	--	0.1	--	--	--	248	51								
433110.00 12/02/65 1245	1.73 30	11.9 100	45 F	8.6 8.2	439	--	--	14	--	9.0	207	--	24	--	--	0.0	--	--	--	204	20								
433110.00 01/06/66 1400	4.53 875	11.4 103	50 F	8.0 7.9	185	--	--	4.7	--	0.0	100	--	1.8	--	--	0.0	--	--	--	85	3								
433110.00 02/09/66 0915	2.29 171	13.0 101	39 F	8.6 8.0	356	--	--	10	--	9.0	184	--	4.3	--	--	0.1	--	--	--	174	8								
433110.00 03/08/66 0945	2.11 74	12.1 105	47 F	8.5 8.2	347	--	--	10	--	6.0	181	--	7.8	--	--	0.0	--	--	--	168	10								
433110.00 04/06/66 1000	2.43 127	11.0 104	54 F	8.2 7.8	166	--	--	5.0	--	0.0	88	--	5.2	--	--	0.0	--	--	--	75	3								
433110.00 05/04/66 0845	2.81 94	9.4 94	59 F	8.3 8.2	261	23	14	9.4	0.6	2.0	132	9.0	11	0.2	--	0.0	14	145	148	116	5								
433110.00 06/02/66 1400	1.48 111	8.5 111	84 F	8.7 8.4	402	--	--	13	--	12	174	--	30	--	--	0.0	--	--	--	174	12								
433110.00 09/13/66 1315	1.04 2.2	9.4 114	76 F	8.5 8.2	942	43	33	92	1.6	8.0	176	11	207	0.9	--	0.1	14	552	497	243	85								

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M.T. J	NO. SAT	TEMP F	PH LHM FLD	EC LHM FLD	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	F	H	SiO2	TDS SUM	TH NCH	
						CLEAR CREEK NEAR IGO (124)														
A36130.00 10/07/65 1420	2.41 57	10.5 107	60 F	7.9 8.0	95	--	--	3.0 .13	--	0.0	52 .85	--	2.0 .06	--	--	0.0	--	--	54 12	
A36130.00 11/04/65 1430	2.66 105	11.0 104	54 F	8.0 7.9	94	--	--	2.9 .13	--	0.0	51 .84	--	2.1 .06	--	--	0.0	--	--	44 2	
A36130.00 12/13/65 1630	2.71 115	12.0 104	47 F	8.0 7.4	93	--	--	3.4 .15	--	0.0	44 .72	--	1.8 .05	--	--	0.0	--	--	37 1	
A36130.00 01/05/66 1430	4.27 1150	12.0 102	46 F	7.4 7.2	58	--	--	3.4 .16	--	0.0	16 .26	--	0.8 .02	--	--	0.0	--	--	21 8	
A36130.00 02/04/66 1450	6.98 4340	11.4 104	44 F	7.7 7.2	63	--	--	3.4 .17	--	0.0	29 .48	--	1.9 .05	--	--	0.0	--	--	23 0	
A36130.00 03/02/66 1350	2.42 140	12.4 106	45 F	7.9 7.4	83	--	--	4.6 .20	--	0.0	40 .66	--	0.9 .03	--	--	0.0	--	--	32 0	
A36130.00 04/13/66 1245	2.60 90	11.9 111	53 F	8.0 7.4	83	--	--	4.2 .14	--	0.0	40 .66	--	1.6 .05	--	--	0.0	--	--	33 0	
A36130.00 05/03/66 1000	2.34 52	10.7 105	57 F	7.7 7.4	90	8.0 .40 44	3.9 .32 35	4.2 .18 20	0.5 .01 1	0.0	43 .71 77	6.0 .12 13	2.8 .08 9	0.9 .01 1	--	0.0	15	62 62	36 1	
A36130.00 06/03/66 0925	2.34 47	11.3 106	53 F	7.9 7.4	91	--	--	3.4 .17	--	0.0	46 .75	--	1.9 .05	--	--	0.0	--	--	38 1	
A36130.00 07/07/66 1015	2.29 39	10.5 109	62 F	8.0 7.4	94	--	--	3.6 .16	--	0.0	48 .79	--	2.2 .06	--	--	0.0	--	--	40 1	
A36130.00 08/02/66 0445	2.30 44	10.0 103	41 F	7.7 7.3	98	6.7 .33 33	4.3 .52 52	3.2 .14 14	0.5 .01 1	0.0	50 .82 85	4.0 .04 8	1.8 .05 5	0.4 .01 1	--	0.0	12	59 59	42 1	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	NO SAT	TEMP F	P4 LAB FLD	FC LAB FLD	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	S102	TDS	TH NCH	
BUTTE CREEK NEAR CHICO (34)																				
A41110.00 10/06/65 1445	1.63 166 5050	10.3 105	61 F	8.2 7.9	111	--	--	3.6 .16	--	0.0	68 1.12 1	--	0.4 .01	--	--	0.0	--	--	--	51 0
A41110.00 11/03/65 1600	1.38 94 5050	10.7 101	55 F	8.2 7.9	123	--	--	5.0 .22	--	0.0	74 1.21	--	0.5 .01	--	--	0.0	--	--	--	43 0
A41110.00 12/01/65 1510	1.78 222 5050	12.5 104	45 F	8.1 7.3	101	--	--	3.5 .15	--	0.0	60 .98	--	0.8 .02	--	--	0.1	--	--	--	46 0
A41110.00 01/05/66 1555	4.34 2210 5050	12.1 104	47 F	8.2 7.1	68	--	--	2.4 .10	--	0.0	38 .62	--	0.7 .02	--	--	0.1	--	--	--	28 0
A41110.00 02/02/66 1400	2.30 475 5050	12.6 104	44 F	8.1 7.3	48	--	--	4.1 .14	--	0.0	50 .82	--	0.7 .02	--	--	0.0	--	--	--	39 0
A41110.00 03/08/66 1530	2.15 395 5050	12.7 113	50 F	8.0 7.6	90	--	--	3.2 .14	--	0.0	50 .82	--	0.4 .01	--	--	0.0	--	--	--	38 0
A41110.00 04/02/66 1500	2.55 634 5050	11.6 103	50 F	7.8 7.6	60	--	--	2.3 .10	--	0.0	33 .54	--	0.5 .01	--	--	0.0	--	--	--	26 0
A41110.00 05/04/66 1310	2.29 470 5050	10.1 97	56 F	7.7 7.3	65	7.6 .38 55	2.2 .18 26	2.5 .11 16	0.6 .02 3	0.0	37 .61 .94	1.0 .02 3	0.4 .01 2	0.7 .01 2	--	0.2	17	48 50	28 0	
A41110.00 06/02/66 0800	1.41 234 5050	10.3 101	54 F	8.0 7.6	87	--	--	3.7 .16	--	0.0	51 .84	--	0.4 .01	--	--	0.0	--	--	--	38 0
A41110.00 07/13/66 1100	1.52 134 5050	9.8 100	61 F	8.1 7.8	102	--	--	3.4 .15	--	0.0	63 1.03 1	--	0.6 .02	--	--	0.0	--	--	--	44 0
A41110.00 08/10/66 1250	1.35 46 5050	9.4 107	71 F	8.2 8.5	108	--	--	4.0 .17	--	0.0	65 1.07	--	0.4 .01	--	--	0.0	--	--	--	48 0
A41110.00 09/14/66 0900	1.47 117 5050	10.6 104	54 F	7.9 7.6	111	12 .60 52	4.7 .39 34	3.5 .15 13	0.9 .02 2	0.0	67 1.10 97	0.0 0.0 2	0.6 .02 2	0.6 .01 1	--	0.0	20	82 75	50 0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP	PH LAR FLO	FC LAR FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
						CA	MG	NA	K	CO ₃	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SI0 ₂	TDS SUM	TH NCH
BIG CHICO CREEK NEAR CHICO (85)																				
A42110.00 10/04/65 1345	2.33 25	9.9 103	63 F	8.3 8.1	206	--	--	13 .57	--	2.0 .07	104 1.71	--	9.7 .27	--	--	0.1	--	--	77 0	
A42110.00 11/04/65 1000	2.36 28	10.8 102	55 F	8.2 7.9	210	--	--	14 .61	--	0.0	110 1.80	--	4.6 .24	--	--	0.1	--	--	76 0	
A42110.00 12/01/65 1600	2.73 59	12.5 104	45 F	8.1 7.5	144	--	--	8.2 .36	--	0.0	74 1.21	--	5.6 .16	--	--	0.1	--	--	55 0	
A42110.00 01/06/66 0940	4.47 49	11.6 102	49 F	8.4 7.1	67	--	--	3.3 .14	--	2.0 .07	33 .54	--	1.1 .03	--	--	0.1	--	--	26 0	
A42110.00 02/08/66 1505	3.54 235	12.8 105	44 F	8.1 7.3	89	--	--	4.9 .21	--	0.0	47 .77	--	1.5 .04	--	--	0.0	--	--	35 0	
A42110.00 03/08/66 1445	3.03 125	12.0 108	51 F	8.0 7.6	115	--	--	6.4 .24	--	0.0	61 1.00	--	2.3 .06	--	--	0.0	--	--	44 0	
A42110.00 04/06/66 1425	2.88 96	10.6 104	58 F	8.0 7.5	122	--	--	6.7 .29	--	0.0	66 1.08	--	3.3 .09	--	--	0.0	--	--	49 0	
A42110.00 05/04/66 1235	2.52 45	9.8 102	63 F	8.1 7.9	162	14 .70 42	6.3 .52 31	9.7 .42 25	0.9 .02 1	0.0	84 1.38 83	5.0 .10 6	0.6 .01 1	6.0 .17 10	0.6 .01 1	--	0.2	33	116 117	61 0
A42110.00 06/09/66 0900	2.37 31	9.7 106	47 F	8.3 8.1	192	--	--	14 .61	--	1.0 .03	97 1.59	--	9.1 .26	--	--	0.1	--	--	73 0	
A42110.00 07/13/66 1015	2.27 24	9.5 107	70 F	8.4 8.2	209	--	--	15 .65	--	3.0 .10	104 1.71	--	10 .28	--	--	0.1	--	--	76 0	
A42110.00 08/10/66 1210	2.20 19	8.8 104	75 F	8.2 8.4	215	--	--	17 .74	--	0.0	112 1.84	--	12 .34	--	--	0.1	--	--	76 0	
A42110.00 09/14/66 0830	2.16 22	10.0 104	63 F	8.2 7.9	220	16 .80 36	8.8 .72 32	16 .70 31	1.0 .03 1	0.0	111 1.82 77	6.0 .12 5	1.2 .02 1	14 .39 17	1.2 .02 1	--	0.1	35	146 152	76 0

MINERAL ANALYSIS OF SURFACE WATER

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. S	ON SAT	TEMP F	PH LAR FLD	EC LAR FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER						
						Ca	Mg	Na	K	CO3	HCO3	SO4	CL	NO3	F	H	S102	TDS SUM	TH NCH	
						MILL CREEK NEAR MOUTH (88)														
444110.00 10/06/65 1420	5000 5050	1.0	10.7 12.3	72 F 7.9	206	--	--	15 .65	--	0.0	68 1.12	--	16 .45	--	--	0.5	--	--	--	63 7
444110.00 11/03/65 1420	5000 5050	2.0	11.5 10.9	55 F 7.9	202	--	--	16 .70	--	0.0	63 1.03	--	18 .51	--	--	0.5	--	--	--	54 5
444110.00 12/13/65 1410	5000 5050	70	12.5 10.7	47 F 8.0	194	--	--	16 .70	--	0.0	56 .92	--	22 .62	--	--	0.4	--	--	--	53 7
444110.00 01/17/66 1230	5000 5050	75	12.7 10.4	44 F 7.5	159	--	--	13 .57	--	0.0	54 .89	--	16 .45	--	--	0.4	--	--	--	50 6
444110.00 02/10/66 1030	5000 5050	40	13.1 10.6	43 F 7.4	129	--	--	7.5 .33	--	0.0	56 .92	--	14 .39	--	--	0.4	--	--	--	48 2
444110.00 03/02/66 1110	5000 5050	65	13.6 11.4	44 F 7.4	164	--	--	12 .52	--	0.0	56 .92	--	10 .28	--	--	0.4	--	--	--	44 2
444110.00 04/12/66 1200	5000 5050	150	11.9 11.0	53 F 7.7	99	--	--	7.1 .31	--	0.0	29 .48	--	4.5 .13	--	--	0.2	--	--	--	28 6
444110.00 05/02/66 1130	5000 5050	200	11.0 11.1	40 F 7.5	117	8.6 .43	2.8 .23	7.4 .34	1.6 .04	0.0	32 .52	14 .37	4.2 .17	0.3	--	0.2	25	103	33	86 7
444110.00 06/02/66 1025	5000 5050		10.0 10.3	42 F 7.4	143	--	--	10 .44	--	0.0	37 .61	--	4.6 .27	--	--	0.3	--	--	--	42 12
444110.00 07/06/66 0450	5000 5050	2.0	11.5 135	73 F 7.4	224	--	--	15 .65	--	0.0	80 1.31	--	14 .39	--	--	0.4	--	--	--	74 9
444110.00 08/01/66 1000	5000 5050	110	10.9 143	44 F 8.2	241	--	--	17 .74	--	0.0	88 1.44	--	18 .51	--	--	0.4	--	--	--	80 8
444110.00 09/01/66 1300	5000 5050	97	11.0 137	40 F 7.4	258	14 .90	10 .82	17 .74	2.8 .07	0.0	94 1.54	21 .44	21 .59	1.1 .02	--	0.5	38	177	175	86 9

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. 0	WIND SAT	TEMP F	PH L&H FLD	EC L&H FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				
						CA	MG	NA	K	CO3	CO3	SO4	CL	NO3	F	H	SI02	TDS SUM
ANTELOPE CREEK NEAR RED BLUFF (88e)																		
445110.50 10/06/65 1320	1.02 40	10.4 113	67 F	8.4 8.1	154	--	--	1.0 .44	--	2.0 .07	79 1.30	--	7.0 .20	--	--	0.1	--	59 0
445110.50 11/03/65 1320	1.05 42	11.7 104	51 F	8.3 8.1	156	--	--	9.9 .43	--	1.0 .03	82 1.34	--	6.1 .17	--	--	0.0	--	57 0
445110.50 12/13/65 1500	2.04 53	12.9 104	46 F	8.2 8.0	151	--	--	9.2 .40	--	0.0	80 1.31	--	7.6 .21	--	--	0.0	--	57 0
445110.50 01/17/66 1325	5.9 59	13.1 106	43 F	8.0 7.6	118	--	--	7.3 .32	--	0.0	72 1.18	--	4.9 .14	--	--	0.0	--	50 0
445110.50 02/09/66 1440	12.4 124	13.0 105	43 F	8.0 7.4	109	--	--	5.6 .24	--	0.0	62 1.02	--	2.8 .08	--	--	0.1	--	43 0
445110.50 03/02/66 1030	13.0 130	11.4 94	45 F	8.1 7.2	109	--	--	6.5 .24	--	0.0	60 .98	--	3.0 .08	--	--	0.0	--	43 0
445110.50 04/12/66 1105	14.4 144	11.4 114	54 F	7.9 7.6	75	--	--	4.2 .18	--	0.0	40 .66	--	1.2 .03	--	--	0.0	--	28 0
445110.50 05/02/66 1045	12.4 124	10.4 110	41 F	7.9 7.6	84	6.6 .33 34	3.6 .30 35	4.9 .21 24	0.8 .02 2	0.0	50 .82 92	1.0 .02 2	1.9 .05 6	0.3	--	0.0	25	73 69 0
445110.50 06/02/66 0940	5.2 52	10.6 112	64 F	8.2 8.0	128	--	--	7.4 .34	--	0.0	69 1.13	--	5.3 .15	--	--	0.0	--	47 0
445110.50 07/04/66 1030	3.2 32	10.4 125	76 F	8.2 8.2	154	--	--	1.1 .44	--	0.0	80 1.31	--	7.1 .20	--	--	0.1	--	54 0
445110.50 09/01/66 1155	3.3 33	9.9 114	74 F	8.4 8.2	143	12 .60 35	7.4 .61 35	1.1 .44 24	1.3 .03 6	3.0 2.0 6	82 1.34 80	2.0 .04 2	6.7 .19 11	0.1	--	0.1	37	114 121 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT. N	LONG. W	TEMP F	EC FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS SUM				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	S102	TDS	NCH
					BATTLE CREEK NEAR COTTONWOOD (88b)													
447110.00 10/07/65 1000	4.09 296	10.0 94	54 F 7.5	142	--	--	8.2 .36	--	1.0 .03	83 1.36	--	1.3 .04	--	--	0.0	--	--	58 0
447110.00 11/04/65 1020	4.05 325	10.4 102	55 F 7.6	143	--	--	8.1 .35	--	0.0	84 1.38	--	1.3 .04	--	--	0.0	--	--	55 0
447110.00 12/13/65 1115	4.16 330	12.0 102	46 F 7.5	134	--	--	7.6 .33	--	0.0	78 1.28	--	2.1 .06	--	--	0.0	--	--	52 0
447110.00 01/05/66 1550	5.14 905	11.3 94	46 F 7.2	85	--	--	5.0 .22	--	0.0	46 .75	--	1.6 .05	--	--	0.0	--	--	34 0
447110.00 02/04/66 1215	5.05 815	11.5 92	47 F 7.2	93	--	--	4.9 .21	--	0.0	50 .82	--	1.4 .04	--	--	0.1	--	--	36 0
447110.00 03/02/66 0945	4.29 375	12.2 112	52 F 7.4	131	--	--	7.1 .31	--	0.0	77 1.26	--	0.9 .03	--	--	0.0	--	--	52 0
447110.00 04/12/66 1345	4.64 549	11.3 106	54 F 7.5	100	--	--	5.4 .23	--	0.0	57 .93	--	0.6 .02	--	--	0.0	--	--	38 0
447110.00 05/02/66 1410	4.44 450	10.6 103	57 F 7.7	110	8.4 .44	5.4 .44	6.1 .27	1.6 .04	0.0	66 1.08	3.0 .06	1.3 .04	0.5 .01	--	0.0	35 94	101 94	44 0
447110.00 06/02/66 1305	4.15 312	10.7 103	56 F 7.6	125	--	--	7.0 .30	--	0.0	73 1.20	--	1.2 .03	--	--	0.0	--	--	48 0
447110.00 07/04/66 1220	4.17 275	10.5 104	62 F 8.0	142	--	--	7.9 .34	--	0.0	84 1.38	--	0.1	--	40	0.0	--	--	55 0
447110.00 09/01/66 0740	4.01 250	9.5 94	60 F 7.7	152	10 .50	8.0 .66	9.2 .40	2.3 .06	0.0	91 1.49	3.0 .06	1.8 .05	0.1	--	0.0	46 119	125 125	58 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

COW CREEK NEAR MILLVILLE (88a)													MILLIGRAMS PER LITER										MILLIGRAMS PER LITER		
STATION NUMBER		DATE		TEMP		PH		MINERAL CONSTITUENTS IN					MILLIEQUIVALENT PER LITER					PERCENT REACTANCE VALUE					TDS		
G.M.	LAT	NO	F	F	F	EC	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	SI0 ₂	TH						
Q	SAMPLER	SAT				FLD	FLD	FLD	FLD	FLD									SUM	NCH					
1.90	50	9.7	67	8.3	175	--	--	--	8.7	--	1.0	89	--	5.5	--	--	0.0	--	--	69					
10/07/65	5000	10.6		7.7					.34		.03	1.46		.16					0						
1045																									
2.14	73	10.1	60	8.2	162	--	--	--	8.7	--	0.0	85	--	5.4	--	--	0.0	--	--	63					
11/04/65	5000	10.2		7.5					.38			1.39		.15					0						
1100																									
7.52	4720	12.6	46	8.2	163	--	--	--	9.0	--	0.0	79	--	9.0	--	--	0.0	--	--	62					
12/13/65	5000	10.7		7.4					.39			1.30		.23					0						
1035	5050																								
3.24	440	12.7	43	7.7	118	--	--	--	6.4	--	0.0	60	--	3.9	--	--	0.0	--	--	51					
01/17/66	5000	10.3		7.3					.28			.98		.11					2						
1500	5050																								
6.75	3720	12.1	42	7.8	69	--	--	--	3.7	--	0.0	30	--	1.6	--	--	0.1	--	--	25					
02/04/66	5000	9.7		7.2					.14			.49		.05					1						
1135	5050																								
3.66	660	12.7	49	7.7	126	--	--	--	6.6	--	0.0	56	--	2.7	--	--	0.1	--	--	47					
03/07/66	5000	11.2		7.4					.29			.92		.08					1						
1445	5050																								
4.54	1340	11.0	52	7.9	91	--	--	--	4.5	--	0.0	42	--	1.2	--	--	0.0	--	--	35					
04/13/66	5000	10.1		7.3					.20			.69		.03					1						
1410	5050																								
4.13	384	9.9	61	7.9	96	10	3.2	4.7	0.6	0.0	50	5.0	2.0	22	76	38	0								
05/02/66	5000	10.1		7.4		.50	.26	.20	.02		.82	.10	.06	72	0										
1445	5050					51	27	20	2		84	10	6												
2.43	148	9.6	65	8.1	126	--	--	--	6.4	--	0.0	67	--	3.0	--	--	0.0	--	--	51					
06/02/66	5000	10.2		7.6					.28			1.10		.08					0						
1335	5050																								
1.64	21	9.8	81	8.2	174	--	--	--	8.9	--	0.0	94	--	5.2	--	--	0.0	--	--	69					
07/04/66	5000	12.3		8.1					.39			1.54		.15					0						
1300	5050																								
1.51	15	11.9	72	8.4	208	18	8.7	12	2.0	4.0	108	5.0	7.8	35	149	81	0								
09/01/66	5000	7.9		7.3		.90	.72	.52	.05		.13	1.77	.10	.22	146	0									
0820	5050					41	33	24	2		6	79	4	10											

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.M.	NO	TEMP	PH	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER					MILLIGRAMS PER LITER				
DATE	LAH					LAH	EC	CA	MG	NA	K	CU3	HC03	SU4	CL	NO3	F	H	SI02	TOS
TIME	SAMPLE	U	SAT	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD	FLD		
A 5 1140.00 FEATHER RIVER NEAR OROVILLE (19)																				
AS1140.00	2.37	10.5	--	8.1	101	--	--	3.9	--	0.0	59	--	0.9	--	--	.00	--	42		
10/08/65	5000	3140	63	7.5				.17		.97			.03					0		
0945																				
AS1140.00		--	--	8.0	104	--	--	4.0	--	0.0	62	--	0.7	--	--	.10	--	44		
10/15/65	5000							.17		1.02			.02					0		
0930																				
AS1140.00	2.44	11.4	--	8.1	109	--	--	4.3	--	0.0	63	--	1.0	--	--	.00	--	46		
11/05/65	5000	3300	111	7.5				.14		1.03			.03					0		
1045																				
AS1140.00	2.54	13.1	--	7.6	102	--	--	4.2	--	0.0	54	--	1.5	--	--	.00	--	42		
12/03/65	5000	3520	109	7.3				.14		.69			.04					0		
1300																				
AS1140.00	3.95	13.4	--	7.4	87	--	--	3.6	--	0.0	45	--	1.1	--	--	.00	--	36		
01/07/66	5000	7130	110	7.5				.16		.74			.03					0		
1300																				
AS1140.00	2.34	13.7	--	8.1	118	--	--	4.4	--	0.0	65	--	0.2	--	--	.00	--	48		
02/11/66	5000	3080	111	7.5				.21		1.07			.01					0		
1045																				
AS1140.00	3.05	12.5	--	8.0	107	--	--	4.6	--	0.0	59	--	1.1	--	--	.00	--	44		
03/10/66	5000	4710	109	7.3				.20		.77			.03					0		
1045																				
AS1140.00	4.65	11.8	--	7.9	67	--	--	2.4	--	0.0	36	--	0.4	--	--	.00	--	28		
04/07/66	5000	9350	111	7.5				.11		.59			.02					0		
1315																				
AS1140.00	3.75	11.2	--	7.5	61	0.4	2.3	2.2	0.7	0.0	33	4.0	0.6	0.1	--	.00	10	45		
05/05/66	5000	6590	109	7.3		.32	.19	.10	.02	.54	.00	.02	.02	.01	--		41	0		
0845						51	30	16	3	.27	10	3								
AS1140.00	19.	10.2	--	8.1	96	--	--	3.4	--	0.0	55	--	0.7	--	--	.00	--	41		
06/09/66	5000	2250	109	7.7				.17		.90			.02					0		
1215																				
AS1140.00	2.20	9.7	--	7.7	104	--	--	4.2	--	0.0	61	--	1.1	--	--	.00	--	42		
07/14/66	5000	2790	106	7.7				.14		1.00			.03					0		
0900																				
AS1140.00	2.10	9.4	--	7.3	103	--	--	4.7	--	0.0	60	--	2.0	--	--	.00	--	49		
08/11/66	5000	2590	110	7.9				.20		.94			.06					0		
1215																				
AS1140.00	1360	10.1	--	6.4	171	14	12	3.4	0.7	3.0	100	1.4	1.1	0.6	--	.00	--	111		
09/15/66	5000	1360	105	7.7		.70	.49	.17	.02	.10	1.04	.03	.03	.01	--		86	0		
1045						37	53	5	1	6	21	2		1						

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP F	PH FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER							
				FC FLO	LAH FLO	CA	MG	NA	K	CO3	HCO3	SU4	CL	NO3	F	H	SI02	TDS SUM	TH NCH
A 5 2100.00 FEATHER RIVER, WEST BRANCH, NEAR YANKEE HILL (19d)																			
452100.00 10/15/65 5000 1015	10.1 102	-- 59	8.2 7.9	155	--	--	4.0 .17	--	0.0	94 1.54	--	1.5 .04	--	--	--	.00	--	--	76 0
452100.00 11/14/65 5000 1230	--	--	7.9	75	--	--	2.9 .13	--	0.0	40 .66	--	0.5 .01	--	--	--	.00	--	--	32 0
452100.00 11/17/65 5000 1230	11.2 105	-- 53	7.4 7.3	75	--	--	2.9 .13	--	0.0	40 .66	--	0.5 .01	--	--	--	.00	--	--	32 0
452100.00 12/03/65 5000 1200	12.5 106	-- 45	7.8 7.3	92	--	--	2.9 .13	--	0.0	46 .75	--	1.0 .03	--	--	--	.00	--	--	41 4
452100.00 01/12/66 5000 1240	12.9 104	-- 42	7.6 7.5	78	--	--	2.3 .10	--	0.0	44 .72	--	0.7 .02	--	--	--	.00	--	--	34 0
452100.00 02/04/66 5000 1330	12.3 105	-- 46	7.9 7.5	36	--	--	2.7 .12	--	0.0	48 .79	--	0.8 .02	--	--	--	.00	--	--	38 0
452100.00 03/10/66 5000 1130	12.0 107	-- 49	7.6 7.3	60	--	--	2.3 .10	--	0.0	32 .52	--	0.5 .01	--	--	--	.02	--	--	25 0
452100.00 04/07/66 5000 1130	12.0 110	-- 51	7.4 7.4	34	--	--	1.6 .07	--	0.0	18 .30	--	0.5 .01	--	--	--	.02	--	--	14 0
452100.00 05/11/66 5000 1120	10.9 102	-- 53	7.2 7.3	39	--	5.6 .24 .64	0.6 .05 12	1.4 .07 17	0.4 .01 2	0.0 22 90	1.0 .02 5	0.2 .01 3	0.7 .01 3	--	--	.00	9.7 31	32 31	16 0
452100.00 06/09/66 5000 1015	9.5 101	-- 64	8.0 7.5	73	--	--	2.4 .12	--	0.0	41 .67	--	0.5 .01	--	--	--	.00	--	--	31 0
452100.00 07/20/66 5000 1145	8.2 99	-- 76	7.6 8.1	157	--	--	3.8 .17	--	0.0	97 1	--	1.9 .05	--	--	--	.00	--	--	74 0
452100.00 08/11/66 5000 1115	7.9 96	-- 76	8.0 8.2	169	--	--	4.2 .14	--	0.0	107 1.75	--	2.2 .06	--	--	--	.00	--	--	85 0
452100.00	9.7	--	8.1	115	--	11	5.5	4.5	1.2	0.0	87	1.6	1.0	1.4	--	.00	--	76	50

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.M.	DATE	TIME	TEMP	PH	MINERAL CONSTITUENTS IN				MILLIEQUIVALENT PER LITER				MILLIGRAMS PER LITER					
L.A.H.	L.A.H.						L.A.H.	L.A.H.	PC	CA	MG	NA	K	CU3	MO3	SO4	CL	N03	F	H
A 53140.00 FEATHER RIVER, NORTH FORK, AT BIG BAR (19a)																				
453140.00	10/15/65	5000	0930	10.2	57	8.0	7.3	--	--	4.0	--	0.0	62	--	0.7	--	.01	--	--	44
				102						.17			1.02		.02				0	
453140.00	11/17/65	5000	1145	11.1	52	8.0	7.3	--	--	3.4	--	0.0	53	--	0.7	--	.00	--	--	42
				105						.17			.87		.02				0	
453140.00	12/03/65	5000	1100	13.1	44	8.0	7.5	--	--	3.9	--	0.0	60	--	1.0	--	.00	--	--	45
				111						.17			.98		.03				0	
453140.00	01/12/66	5000	1150	13.1	41	8.1	7.5	--	--	3.4	--	0.0	72	--	1.0	--	.00	--	--	49
				107						.15			1.18		.03				0	
453140.00	02/04/66	5000	1245	12.9	43	8.1	7.5	--	--	4.0	--	0.0	62	--	1.2	--	.00	--	--	48
				108						.17			1.02		.03				0	
453140.00	03/23/66	5000	1215	12.4	48	8.1	7.6	--	--	3.1	--	0.0	52	--	0.8	--	.00	--	--	42
				111						.13			.85		.02				0	
453140.00	04/07/66	5000	1100	11.6	52	7.7	7.3	--	--	2.6	--	0.0	40	--	0.6	--	.01	--	--	31
				87						.11			.66		.02				0	
453140.00	05/11/66	5000	1000	11.0	56	7.4	7.5	7.2	4.0	2.3	0.7	0.0	39	3.0	0.6	.00	12	51	30	
				109				3.6	2.5	1.0	.02	.64	.06	.02	.01	.3	.00	49	0	
								4.9	3.4	1.6	3	.88	.0							
453140.00	06/09/66	5000	0930	10.4	62	8.2	7.7	--	--	3.4	--	0.0	60	--	0.6	--	.00	--	--	45
				111						.17			.98		.02				0	
453140.00	07/20/66	5000	1115	9.9	70	7.1	8.1	--	--	4.2	--	0.0	60	--	0.7	--	.00	--	--	43
				115						.14			.98		.02				0	
453140.00	08/11/66	5000	1015	9.4	73	7.7	8.1	--	--	5.0	--	0.0	62	--	2.0	--	.00	--	--	42
				115						.22			1.02		.06				0	
													1							
453140.00	09/15/66	5000	0930	9.8	63	8.0	7.7	11	5.2	6.6	1.1	0.0	69	0.3	0.1	.00	.00	--	--	49
				106				5.5	4.3	2.9	.03	.13	.01	.93	.1	.07	.00	62	0	
								4.7	3.3	2.7	2	.2				.6				

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER			DATE		TIME		G.M.		SAMPLER		DO		TEMP		PH		EC		MINERAL CONSTITUENTS IN		MILLIGRAMS PER LITER						MILLIGRAMS PER LITER												
		LAB		FLD		CA		MG		NA		K		CO ₃		HCO ₃		SO ₄		CL		NO ₃		F		B		SI0 ₂		TDS		TH							
A 5 4320.00 INDIAN CREEK NEAR CRESCENT MILLS (17d)																																							
454320.00		9.4		--		7.9		148		--		--		7.4		--		0.0		78		--		2.9		--		.01		--		--		57					
11/17/65		5000		92		48		7.1						.34				1.28						.04								0							
1030																																							
454320.00		3.27		11.6		--		7.6		147		--		--		7.2		0.0		76		--		3.2		--		.00		--		--		56					
01/12/66		5000		94		35		7.1						.31				1.25						.09								0							
1020																																							
454320.00		4.57		11.6		--		8.0		99		--		--		4.9		0.0		53		--		1.1		--		.00		--		--		40					
03/23/66		5000		104		42		7.3						.21				.87						.03								0							
1100																																							
454320.00		4.47		8.7		--		7.4		92		14		0.4		0.4		1.3		0.0		50		3.0		0.7		0.6		--		.00		19		78		36	
05/11/66		5000		93		55		7.3				.70		.03		.19		.03		.42		.05		.02		.01		.01		.01		.01		68		0			
0845										74		3		20		3								.90		1		2											
454320.00		1.35		7.7		--		7.1		257		--		--		15		--		0.0		139		--		4.1		--		.02		--		--		108			
07/20/66		5000		97		69		6.9						.65				2.28						.26										0					
0945																																							
454320.00		9.4		--		8.4		256		28		4.3		15		1.8		3.0		143		4.9		6.8		0.8		--		.40		--		158		104			
09/13/66		5000		104		58		7.6				1.40		.68		.65		.05		.10		2.35		.10		.19		.01		.01		.01		139		0			
0900										50		24		23		2		4		45		4				7													

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLE #	ON SAT	TEMP FLD	PH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS						
					FC FLD	CA MG	NA MG	K MG	CO ₃ MG	HCO ₃ MG	SO ₄ MG	CL MG	NO ₃ MG	F	H	SI	O ₂		
A 5100.00 FEATHER RIVER, MIDDLE FORK, NEAR MERRIMAC (19b)																			
455100.00	5.85	12.2	--	8.3	156	--	--	7.4	--	1.0	42	--	2.3	--	--	.00	--	--	65
10/01/65	5000	130	60	8.2				.32		.03	1.34		.06						0
1230																			
455100.00	5.92	11.4	--	8.2	151	--	--	6.7	--	0.0	71	--	1.6	--	--	.00	--	--	63
11/04/65	2030	118	52	8.1				.24			1.16		.05						5
1330																			
455100.00	6.48	12.8	--	7.2	139	--	--	5.6	--	0.0	62	--	2.1	--	--	.00	--	--	58
12/07/65	2660	105	40	7.5				.24			1.02		.06						7
1400																			
455100.00	13.2	--	--	7.6	92	--	--	3.4	--	0.0	46	--	.9	--	--	.00	--	--	38
01/14/66	5000	110	41	7.5				.17			.75		.03						1
1200																			
455100.00	13.6	--	--	8.0	122	--	--	5.3	--	0.0	65	--	1.7	--	--	.01	--	--	50
03/03/66	5000	115	42	7.1				.23			1.07		.05						0
1130																			
455100.00	8.79	11.6	--	7.4	74	--	--	3.3	--	0.0	42	--	.5	--	--	.00	--	--	33
04/14/66	6220	111	51	7.3				.14			.69		.01						0
1300																			
455100.00	8.65	10.7	--	7.5	64	3.4	1.7	2.4	0.7	0.0	36	3.0	0.8	--	--	.00	11	50	28
05/11/66	5000	105	53	7.3		.42	.14	.13	.02		.54	.06	.02	.01					47
1215						.54	.20	.14	.3		.87	.4	.1						0
455100.00	6.75	10.1	--	8.1	91	--	--	3.4	--	0.0	51	--	.6	--	--	.00	--	--	40
06/02/66	2980	115	66	7.9				.14			.44		.02						0
1140																			
455100.00	5.72	9.5	--	8.0	137	--	--	5.4	--	0.0	75	--	2.0	--	--	.00	--	--	61
07/07/66	5000	109	67	8.3				.23			1.23		.06						0
1200																			
455100.00	5.40	8.9	--	7.3	153	--	--	6.2	--	0.0	40	--	.6	--	--	.00	--	--	64
08/04/66	1570	111	75	8.1				.27			1.31		.07						0
1215																			
455100.00	9.6	--	--	7.5	162	1.4	4.0	6.4	0.9	0.0	40	7.7	4.2	--	--	.20	--	--	72
09/02/66	1660	108	65	8.1		.25	.44	.24	.02		1.41	.15	.04						83
1130						.45	.26	.14			.43	.10	.6						7

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.M.	UN	TEMP	PH	EC	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER				MILLIGRAMS PER LITER			
DATE	LAB						LAB	FLD	CA	MG	NA	K	CU3	HC03	SU4	CL	NO3	F	H
TIME	SAMPLER																		NCH
A 5 6080.00 FEATHER RIVER, SOUTH FORK, BELOW PONDEROSA DAM (19c)																			
4560R0.00		12.5	--	7.7	42	--	--	3.5	--	0.0	20	--	0.9	--	--	.00	--	--	16
10/01/65	5000	131	62	7.3				.15			.33		.03						0
0930																			
4560R0.00		10.3	--	7.7	48	--	--	2.4	--	0.0	29	--	0.9	--	--	.00	--	--	19
11/08/65	5000	102	57	7.1				.11			.46		.03						0
1105																			
4560R0.00		12.0	--	7.4	44	--	--	2.0	--	0.0	22	--	0.5	--	--	.00	--	--	18
12/07/65	5000	105	47	7.1				.04			.36		.01						0
1045																			
4560R0.00		13.2	--	7.4	53	--	--	2.0	--	0.0	27	--	0.5	--	--	.00	--	--	22
01/14/66	5000	106	41	7.3				.04			.44		.01						0
1050																			
4560R0.00		13.6	--	7.9	55	--	--	2.0	--	0.0	27	--	0.7	--	--	.00	--	--	20
02/04/66	5000	113	43	7.8				.11			.44		.02						0
1015																			
4560R0.00		13.0	--	7.4	70	--	--	3.2	--	0.0	34	--	1.2	--	--	.02	--	--	28
03/03/66	5000	111	45	7.1				.14			.46		.03						0
1030																			
4560R0.00		12.0	--	7.7	44	--	--	2.0	--	0.0	24	--	0.4	--	--	.00	--	--	19
04/14/66	5000	112	52	7.1				.04			.39		.01						0
1015																			
4560R0.00		11.6	--	7.3	39	5.0	0.5	1.4	0.4	0.0	20	1.0	0.6	0.4	--	.00	12	31	15
05/11/66	5000	113	55	7.3		.25	.05	.04	.01		.33	.02	.02	.01				32	0
1030						.64	.13	.21	.3		.67	.5	.5	.3					
4560R0.00		10.8	--	7.7	46	--	--	2.4	--	0.0	23	--	0.5	--	--	.00	--	--	17
06/02/66	5000	111	60	7.1				.10			.34		.01						0
0900																			
4560R0.00		11.5	--	7.5	44	--	--	1.4	--	0.0	24	--	1.0	--	--	.00	--	--	20
07/07/66	5000	124	64	7.3				.04			.39		.03						1
0930																			
4560R0.00		9.6	--	7.2	43	--	--	2.0	--	0.0	23	--	0.9	--	--	.00	--	--	17
08/04/66	5000	113	72	7.1				.04			.34		.03						0
0930																			
4560R0.00		10.5	--	7.7	41	3.4	1.0	2.0	0.5	0.0	22	0.0	0.0	0.2	--	.10	--	30	15
09/02/66	5000	113	64	7.1		.17	.13	.04	.01		.35	.01	.47					19	0
0930						.43	.33	.24	.3										

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	G.M.T. U	100 SAT	TEMP	PH	MINERAL CONSTITUENTS IN YUBA RIVER NEAR SMARTVILLE (21a)								MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE								MILLIGRAMS PER LITER							
						FC	LAH	FLO	YUBA	CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	F	H	SI02	SUM	TDS	TH					
A61100.00 11/05/65 1245	5000	1.82 730	11.4	--	8.1	109	--	--	3.1	--	0.0	58	--	1.1	--	--	.01	--	--	--	--	48							
			118	63	7.5				.13		.95			.03								1							
A61100.00 01/07/66 1115	5100	3.05 4700	12.8	--	7.7	99	--	--	3.0	--	0.0	38	--	1.0	--	--	.00	--	--	--	42								
			105	44	7.5				.13		.62			.03								11							
A61100.00 03/03/66 1500	5000	2.17	13.1	--	7.9	96	--	--	3.1	--	0.0	46	--	1.0	--	--	.00	--	--	--	40								
			114	48	7.5				.13		.75			.03								3							
A61100.00 05/05/66 1030	5100	10.8 106	10.8	--	7.6	63	6.4	1.5	1.4	0.5	0.0	33	3.0	0.5	0.7	--	.01	13	42	27									
			106	60	7.3		.42	.12	.04	.01		.54	.06	.01	.01		.01					46							
A61100.00 07/14/66 1045	5100	1.52	9.2	--	7.4	96	--	--	2.7	--	0.0	53	--	0.0	--	--	.00	--	--	--	44								
			105	71	7.7				.12		.47											1							
A61100.00 09/02/66 1415	5000	8.7 105	8.7	--	8.2	125	1.6	3.6	3.2	0.7	0.0	68	5.1	1.5	0.6	--	.00	--	--	90									
			105	77	7.9		.40	.30	.14	.02		1.12	.11	.04	.01		.01					64							
							.63	.24	1.1	2		.88	.7	3	1						0								

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.P.	NO	TEMP	PH	FC LAB FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT EQUIVALENT PER LITER				MILLIGRAMS PER LITER			
DATE	LAB						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	SIO2	TDS
TIME	SAMPLER	Q	SAT														NCH	
A 7 1110.00 AMERICAN RIVER AT NIMBUS DAM (22a)																		
A71110.00		2.93	9.0	--	7.6	52	--	--	1.7	--	0.0	.25	--	1.1	--	.00	--	
10/04/65	5000	3130	95	65	7.0				.07		.41			.03			20	
1530																	0	
A71110.00		2.47	8.4	--	7.6	48	--	--	2.1	--	0.0	.18	--	.0.9	--	.00	--	
11/02/65	5000	2440	84	60	6.5				.04		.30			.03			18	
1445																	3	
A71110.00		5.45	9.3	--	7.7	60	--	--	2.7	--	0.0	.28	--	1.4	--	.00	--	
11/30/65	5000	8820	90	57	7.1				.12		.46			.04			24	
1330																	1	
A71110.00		11.4	--	48	7.6	63	--	--	2.7	--	0.0	.28	--	1.9	--	.00	--	
01/05/66	5000	98	98	48	7.3				.12		.46			.05			24	
1300																	1	
A71110.00		2.45	11.8	--	7.9	72	--	--	2.9	--	0.0	.32	--	1.5	--	.00	--	
02/07/66	5000	2680	102	48	7.1				.13		.52			.04			28	
1300																	2	
A71110.00		12.1	--	49	7.8	76	--	--	2.9	--	0.0	.34	--	2.3	--	.01	--	
03/08/66	5000	105	105	49	7.1				.13		.56			.06			30	
0900																	2	
A71110.00		11.8	--	54	7.9	71	--	--	2.5	--	0.0	.32	--	2.2	--	.00	--	
04/06/66	5000	2500	110	54	7.3				.11		.52			.06			28	
0600																	2	
A71110.00		10.9	--	57	7.1	67	7.2	2.3	2.4	0.8	0.0	.32	4.0	1.6	0.3	--	28	
05/03/66	5000	105	105	57	7.3	.36	.19	.12	.02	.02	.52	.05	.05	.05	.01	--	44	
0645						.52	.28	1.7	3		.60	1.2	.8				2	
A71110.00		10.0	--	60	7.8	67	--	--	2.8	--	0.0	.30	--	1.4	--	.00	--	
06/10/66	5000	100	100	60	7.1				.12		.49			.04			26	
0715																	2	
A71110.00		9.3	--	62	7.1	60	--	--	2.2	--	0.0	.29	--	1.8	--	.00	--	
07/15/66	5000	95	95	62	7.1				.10		.48			.08			26	
0745																	2	
A71110.00		9.1	--	65	7.9	69	--	--	2.2	--	0.0	.35	--	1.6	--	.00	--	
08/08/66	5000	96	96	65	7.9				.10		.57			.05			28	
1115																	0	
A71110.00		9.0	--	67	7.8	64	9.4	0.8	2.7	0.7	0.0	.32	1.5	1.7	0.6	--	49	
09/16/66	5000	97	97	67	7.1	.47	.07	.12	.02	.02	.52	.03	.05	.05	.01	--	27	
1300						.69	1.0	1.8	3		.85	.5	.8				33	
																	1	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	COND. U	TEMP °C	pH	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE										TDS SUM	TH NCH
				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂				
A 7 3100.00 AMERICAN RIVER, MIDDLE FORK, NEAR AUBURN (22b)																			
473100+00 11/02/65 0900	6.26	10.7 56	7.3 7.3	-- --	-- --	3.4 .17	-- --	0.0 .80	49 --	-- --	3.7 .10	-- --	-- --	.00 --	-- --	-- --	-- --	44 4	
473100+00 01/05/66 0920	7.82 1000	12.4 103	7.7 7.5	-- --	-- --	4.7 .20	-- --	0.0 .69	42 --	-- --	1.8 .05	-- --	-- --	.00 --	-- --	-- --	-- --	41 7	
473100+00 03/24/66 1500	7.6 860	11.2 110	7.4 7.3	-- --	-- --	2.2 .10	-- --	0.0 .46	28 --	-- --	1.2 .03	-- --	-- --	.00 --	-- --	-- --	-- --	24 1	
473100+00 05/12/66 0755	6.89 102	9.8 62	7.4 7.3	1.0 1.0	0.7 .08	2.5 .11	1.3 .03	0.0 0.0	32 .52	5.0 .10	2.0 .06	0.6 .01	-- 1	-- --	11 14	50 49	28 2	-- --	
473100+00 07/05/66 0745	6.29 100	8.5 73	7.4 7.7	-- --	-- --	4.1 .14	-- --	0.0 .87	53 --	-- --	5.0 .14	-- --	-- --	.00 --	-- --	-- --	-- --	48 5	
473100+00 09/19/66 0430	9.3 104	9.3 68	7.5 7.5	1.5 1.5	3.4 .41	3.4 .17	2.2 .06	0.0 0.0	57 .93	7.2 .15	3.4 .10	0.5 .01	-- 1	-- --	.00 --	-- --	83 64	53 7	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER		G.P.M.	DATE	TIME	L.A.H.	SAMPLE	PH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER				TH	
								LAH	EC	CA	MG	NA	K	CO ₃	PCO ₃	SO ₄	CL	NO ₃	F		H
A 7 4150.00																					
		10.7	--	7.4	99	--	--	3.7	--	0.0	4.8	--	2.9	--	--	.00	--	--	40		
		1220	101	53	7.3			.14		.79		.08							1		
		12.3	--	7.4	59	--	--	2.7	--	0.0	2.2	--	1.5	--	--	.00	--	--	23		
		2310	102	44	7.3			.12		.41		.04							3		
		5.52	11.7	--	7.4	60	--	3.1	--	0.0	2.7	--	2.1	--	--	.01	--	--	23		
		668	111	54	7.7			.13		.44		.06							1		
		6.80	10.6	--	6.9	31	3.4	0.4	1.8	0.6	0.0	1.3	1.0	1.4	--	.00	9.2	31	10		
		1850	102	55	7.1		.17	.03	.04	.02		.21	.02	.04				24	0		
							.57	.10	.27	.7		.78	.7	.15							
		4.91	9.8	--	7.3	30	--	--	1.3	--	0.0	1.5	--	1.0	--	.00	--	--	14		
		349	100	60	7.1				.06		.25		.03						2		
		10.0	--	7.7	43	3.4	1.3	3.2	0.6	0.0	1.9	0.0	1.3	2.1	--	.00	--	36	15		
		104	62	7.2		.14	.11	.14	.02		.31	.04	.03					22	0		
						.41	.24	.30	.4		.42	.11		.8							

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	TEMP SAT	PH LAB FLD	EC LAH FLD	MINERAL CONSTITUENTS IN CACHE CREEK NEAR CAPAY (80)				MILLIGRAMS PER LITER PERCENT REACTANCE VALU				MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂	TDS SUM
A 8 1120.00																	
AB1120.00	2.63	8.9	--	8.5	452	--	--	26	--	9.0	20.7	--	30	--	.13	--	181
10/05/65	186	95	65	7.9	--	--	1.13	--	--	.30	3.39	--	.85	--	--	--	0
0815																	
AB1120.00	4.20	10.4	--	8.1	502	--	--	34	--	0.0	19.1	--	50	--	.21	--	170
11/19/65	690	98	56	8.3	--	--	1.64	--	--	3.13	3.13	--	1.41	--	--	--	14
0930																	
AB1120.00	2.62	10.5	--	8.5	714	--	--	62	--	16	24.2	--	86	--	.29	--	241
12/08/65	184	94	50	8.2	--	--	2.70	--	--	.53	3.97	--	2.43	--	--	--	16
1300																	
AB1120.00	5.74	11.7	--	8.3	343	--	--	17	--	3.0	18.7	--	16	--	.08	--	140
01/13/66	1640	100	47	8.3	--	--	.74	--	--	.10	2.74	--	.45	--	--	--	0
1340																	
AB1120.00	3.81	11.9	--	8.6	492	--	--	32	--	8.0	21.4	--	33	--	.11	--	193
02/14/66		98	44	8.1	--	--	1.34	--	--	.27	3.51	--	.93	--	--	--	4
0930																	
AB1120.00	3.28	10.3	--	8.5	531	--	--	35	--	9.0	22.4	--	40	--	.11	--	200
03/24/66	349	100	57	8.1	--	--	1.52	--	--	.30	3.67	--	1.13	--	--	--	2
1015																	
AB1120.00	3.18	10.0	--	8.6	531	--	--	34	--	8.0	22.4	--	39	--	.15	--	206
04/07/66	320	106	64	8.2	--	--	1.64	--	--	.27	3.67	--	1.10	--	--	--	9
0945																	
AB1120.00	3.68	9.6	--	8.2	363	26	20	21	2.2	0.0	18.8	13	20	1.4	.12	20	146
05/13/66	478	108	70	8.4	1.30	1.64	.91	.06	.2	3.08	.27	.56	.02	.02	--	216	0
1100					33	.42	.23	--	--	.78		.7					
AB1120.00	3.47	9.6	--	7.7	341	--	--	14	--	0.0	18.4	--	15	--	.09	--	143
06/03/66	406	109	71	8.6	--	--	.63	--	--	.26	2.69	--	.42	--	--	--	9
1300																	
AB1120.00	3.63	8.9	--	8.0	316	--	--	15	--	0.0	18.1	--	11	--	.10	--	139
07/15/66	313	98	68	8.3	--	--	.66	--	--	.24	2.97	--	.31	--	--	--	0
1000																	
AB1120.00	3.36	7.9	--	8.2	314	--	--	15	--	0.0	17.6	--	12	--	.09	--	135
08/09/66	373	95	76	8.2	--	--	.65	--	--	.24	2.49	--	.34	--	--	--	0
0830																	
AB1120.00	2.62	8.4	--	7.9	347	30	14	21	2.3	0.0	1.48	7.2	14	1.6	1.10	--	224
09/20/66		94	69	8.2	1.50	1.76	.91	.06	.1	3.25	.17	.51	.03	.03	--	197	0
0415					37	.39	.23	--	--	.42		.4					

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT- LONG	TEMP °C	PH FLD	FC LAH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	5102	SUM
A 8 1350.00 CACHE CREEK NEAR LOWER LAKE (42)																	
A81350.00 10/05/65 1245		--	8.5	281	--	--	11	--	6.0	151	--	5.5	--	--	0.6	--	-- 127
							.44		.20	2.48		.16					0
A81350.00 11/03/65 1310		--	8.2	286	--	--	11	--	0.0	165	--	5.1	--	--	0.9	--	-- 127
							.44			2.71		.14					0
A81350.00 12/09/65 1010		--	7.7	254	--	--	10	--	0.0	134	--	6.0	--	--	0.6	--	-- 110
							.44			2.20		.17					0
A81350.00 01/07/66 1230		--	7.9	152	--	--	7.2	--	0.0	66	--	4.1	--	--	0.1	--	-- 62
							.31			1.08		.12					8
A81350.00 02/08/66 1210		--	8.2	270	--	--	11	--	0.0	152	--	5.7	--	--	0.8	--	-- 118
							.44			2.49		.16					0
A81350.00 03/04/66 1150		--	8.4	280	--	--	12	--	2.0	144	--	9.6	--	--	0.8	--	-- 116
							.52		.07	2.36		.27					0
A81350.00 04/07/66 0814		--	8.2	308	--	--	14	--	0.0	165	--	4.2	--	--	0.9	--	-- 134
							.61			2.71		.23					0
A81350.00 05/04/66 0930		--	7.6	274	26	13	11	1.9	0.0	152	9.0	5.4	5.8	--	0.7	24	175 120
					1.30	1.07	.44	.05		2.49	.19	.15	.09				171 0
					47	37	17	2		85	7	5	3				
A81350.00 06/07/66 1300		--	8.4	268	--	--	10	--	4.0	148	--	5.4	--	--	0.7	--	-- 119
							.44		.13	2.43		.15					0
A81350.00 07/13/66 0940		--	8.4	274	--	--	11	--	2.0	152	--	5.3	--	--	0.7	--	-- 124
							.44		.07	2.49		.15					0
A81350.00 09/14/66 1130		--	8.0	299	25	17	14	2.2	0.0	166	9.0	6.2	5.7	--	0.9	27	187 132
					1.25	1.40	.57	.06		2.72	.19	.17	.09				187 0
					34	43	17	2		86	6	5	3				

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	G.M.T. (J)	SAT	TEMP	PH	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER										MILLIGRAMS PER LITER				
						PC L4H FLD	CA	Mg	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SIO ₂	TDS SUM	TH NCH
A 8 1720.00 CLEAR LAKE AT LAKEPORT (41)																				
481720.00 10/05/65 1145			--	8.4	269	--	--	--	1.0	--	3.0	149	--	5.3	--	--	0.7	--	--	120
									.44		.10	2.43		.15					--	0
481720.00 11/03/65 1100			--	8.1	274	--	--	--	1.1	--	0.0	160	--	5.2	--	--	0.8	--	--	124
									.49			2.62		.15					--	0
481720.00 12/09/65 0800			--	8.4	265	--	--	--	1.0	--	4.0	145	--	5.8	--	--	0.7	--	--	119
									.44		.13	2.34		.16					--	0
481720.00 01/07/66 1000			--	8.1	197	--	--	--	7.4	--	0.0	102	--	3.4	--	--	0.4	--	--	84
									.32			1.67		.10					--	1
481720.00 02/08/66 0900			--	8.0	232	--	--	--	8.4	--	9.0	117	--	4.5	--	--	0.5	--	--	101
									.34			1.92		.13					--	5
481720.00 03/04/66 1250			--	8.3	232	--	--	--	8.4	--	1.0	119	--	7.0	--	--	0.6	--	--	101
									.36		.03	1.45		.14					--	2
481720.00 04/04/66 0730			--	8.3	234	--	--	--	9.1	--	1.0	132	--	5.2	--	--	0.4	--	--	106
									.40		.03	2.16		.15					--	0
481720.00 05/04/66 0520			--	8.0	244	22	13	9.4	1.5	0.0	0.0	140	9.0	4.6	1.4	--	0.5	22	154	110
						1.10	1.07	.41	.04			2.30	.19	.13	.02				152	0
						.42	.41	1.6	2			.87	7	5	1					
481720.00 06/10/66 0620			--	8.4	253	--	--	--	9.4	--	2.0	145	--	4.4	--	--	0.5	--	--	112
									.44		.07	2.34		.12					--	0
481720.00 07/21/66 1200			--	7.4	267	--	--	--	1.0	--	0.0	152	--	4.8	--	--	0.4	--	--	120
									.44			2.49		.14					--	0
481720.00 08/14/66 1410			--	7.7	240	24	16	1.1	1.9	0.0	0.0	160	9.0	4.6	2.4	--	0.9	29	174	126
						1.20	1.32	.44	.05			2.62	.17	.13	.04				177	0
						.34	.43	1.4	2			.84	6	4	1					

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP F	PH	EC UMH	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER										MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO ₃	HCO ₃	MILLIEQUIVALENT PER LITER PAPANT REACTANT VALUE			MILLIGRAMS PER LITER					
											SO ₄	CL	NO ₃	F	H	SiO ₂	TDS SUM	TH NCH	
A 8 2050.00 CACHE CREEK, NORTH FORK, NEAR LOWER LAKE (79)																			
482050.00		--	8.5	595	--	--	34	--	10	215	--	66	--	--	3.9	--	--	226	
10705765							1.44		.33	3.53		1.86					33		
482050.00		--	8.5	615	--	--	34	--	9.0	213	--	75	--	--	4.00	--	--	232	
11703765							1.70		.30	3.49		2.12					43		
482050.00		--	8.5	615	--	--	34	--	9.0	213	--	75	--	--	4.0	--	--	232	
0900							1.70		.30	3.49		2.12					43		
482050.00		--	8.5	524	--	--	34	--	8.0	216	--	51	--	--	3.6	--	--	198	
12709765							1.44		.27	3.54		1.44					8		
482050.00		--	8.1	169	--	--	6.4	--	0.0	49	--	.40	--	--	0.3	--	--	72	
01707766							.30			1.46		.11					0		
1310																			
482050.00		--	8.3	223	--	--	9.7	--	1.0	120	--	5.4	--	--	0.5	--	--	96	
02704766							.42		.03	1.97		.16					0		
1100																			
482050.00		--	8.4	309	--	--	13	--	4.0	159	--	.49	--	--	0.6	--	--	134	
03704766							.57		.13	2.61		.28					0		
1045																			
482050.00		--	8.5	373	--	--	14	--	5.0	145	--	.19	--	--	1.4	--	--	159	
04707766							.74		.17	3.03		.54					0		
1000																			
482050.00		--	8.5	404	--	--	24	--	1.1	191	--	.13	--	--	1.6	--	--	169	
05704766							1.47		.03	3.13		.27					233		
1045							32		1	72		.15					0		
482050.00		--	8.7	475	--	--	30	--	10	210	--	.34	--	--	2.4	--	--	202	
06707766							1.31		.33	3.44		1.07					14		
1400																			
482050.00		--	8.5	517	--	--	32	--	8.0	212	--	.48	--	--	3.2	--	--	206	
07713766							1.34		.27	3.44		1.55					19		
0755																			
482050.00		--	8.1	613	--	--	34	--	0.0	236	--	.21	--	--	4.1	--	--	224	
09714766							1.70		.05	3.47		.44					347		
0930							27		1	61		.7					31		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	S.M. SAT	TEMP	PH	EC UMH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER				TDS SUM	TH NCH
					CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂		
A 9 1250.00 PUTAH CREEK NEAR WINTERS (81)																		
A91250.00 10/06/65 1415	--	8.5	293	--	--	7.6	--	5.0	158	--	4.6	--	--	0.1	--	--	142	
						.33		.17	2.59		.13						4	
A91250.00 11/04/65 1110	--	8.4	296	--	--	8.2	--	4.0	161	--	4.2	--	--	0.1	--	--	144	
						.36		.13	2.64		.12						6	
A91250.00 12/05/65 1600	--	8.6	308	--	--	9.3	--	4.0	166	--	2.4	--	--	.10	--	--	148	
						.40		.13	2.72		.18						6	
A91250.00 12/09/65 1600	--	8.6	308	--	--	9.3	--	4.0	166	--	6.4	--	--	0.1	--	--	148	
						.40		.13	2.72		.18						6	
A91250.00 01/14/66 0945	--	8.4	325	--	--	11	--	4.0	162	--	7.6	--	--	0.2	--	--	148	
						.44		.13	2.66		.21						9	
A91250.00 02/09/66 1000	--	8.5	310	--	--	9.7	--	4.0	164	--	2.4	--	--	0.1	--	--	145	
						.41		.13	2.69		.18						4	
A91250.00 03/03/66 1430	--	8.4	305	--	--	8.7	--	4.0	165	--	5.0	--	--	0.2	--	--	145	
						.34		.13	2.71		.14						3	
A91250.00 04/14/66 1130	--	8.6	298	--	--	8.7	--	5.0	161	--	4.0	--	--	0.1	--	--	144	
						.37		.17	2.64		.11						4	
A91250.00 05/20/66 0745	--	8.3	301	20	23	8.3	1.3	2.0	170	17	4.7	0.3	--	0.1	13	155	146	
				1.00	1.44	.36	.03	.07	2.79	.35	.13					173	3	
				30	58	11		2	44	10	4							
A91250.00 06/17/66 0430	--	8.6	297	--	--	8.0	--	6.0	161	--	4.6	--	--	0.1	--	--	144	
						.35		.20	2.64		.13						2	
A91250.00 07/15/66 0605	--	8.4	296	--	--	8.2	--	4.0	164	--	4.5	--	--	0.0	--	--	146	
						.36		.13	2.69		.13						5	
A91250.00 09/06/66 1145	--	8.2	301	17	23	8.2	1.5	0.0	170	17	4.0	0.4	--	0.1	13	170	146	
				.45	2.05	.36	.04		2.79	.35	.11	.01				170	7	
				25	62	11	1		46	11	3							

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	DO SAT	TEMP	PH		MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER						MILLIGRAMS PER LITER				TH NCH				
				LAH FLD	EC FLD	LAH FLD	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	S102	TDS SUM					
B O 1125.00 COSUMNES RIVER AT McCONNELL (94a)																								
R01125.00 01/06/66 5000 0415	34.87 1880	11.6 97	-- 46	7.6 7.5	129	--	--	--	5.3 .23	--	0.0 .49	54	--	4.1 .12	--	--	.00	--	--	52 8				
R01125.00 03/08/66 5000 1000	31.71 423	10.9 103	-- 55	8.1 7.3	116	--	--	--	4.4 .21	--	0.0 .97	59	--	2.7 .08	--	--	.00	--	--	48 0				
R01125.00 05/04/66 5000 1445	31.75 435	9.0 102	-- 71	7.6 7.3	52 49	5.4 .27	1.7 .14	2.4 .12	0.7 .02	0.7 .02	0.0 .48	29 92	1.0 3	0.7 .02	0.2 4	--	.00	15	50 42	20 0				

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	G.M. LAT LONG	TEMP F	PH F	MINERAL CONSTITUENTS IN CALAVERAS RIVER NEAR STOCKTON (16B)							MILLIGRAMS PER LITER PERCENT MEASURE VALUE							MILLIGRAMS PER LITER				
					FC F	LAH F	FLD F	CA F	MG F	NA F	K F	CO3 F	HC03 F	S04 F	CL F	NO3 F	F F	H F	SI02 F	TDS F	TH F	NCH F	
B O 2520.00 CALAVERAS RIVER NEAR STOCKTON (16B)																							
H02520.00 12/06/65 5000 1000		11.6 97	-- 46	8.2 8.2	178 --	-- --	5.2 .24	-- --	0.0 1.25	77 --	-- --	4.3 .12	-- --	-- --	.00 --	-- --	-- --	-- --	-- --	-- --	79 16		
			H02520.00 01/06/66 5000 1300		10.8 95	-- 50	7.5 7.7	205 --	-- --	7.1 .31	-- --	0.0 1.43	87 --	-- --	7.2 .20	-- --	.00 --	-- --	-- --	-- --	80 9		
H02520.00 02/01/66 5000 1245	4.90	11.0 97	-- 50	7.7 7.3	141 --	-- --	6.2 .27	-- --	0.0 .80	49 --	-- --	7.0 .14	-- --	.02 --	-- --	-- --	-- --	-- --	-- --	50 10			
			H02520.00 03/01/66 5000 1345		12.3 118	-- 57	8.4 8.8	212 --	-- --	7.6 .33	-- --	1.0 1.57	96 --	-- --	7.2 .20	-- --	.00 --	-- --	-- --	-- --	88 8		
H02520.00 04/13/66 5000 0915		8.2 85	-- 63	8.3 8.1	195 --	-- --	6.7 .24	-- --	1.0 1.51	92 --	-- --	3.6 .10	-- --	.01 --	-- --	-- --	-- --	-- --	-- --	84 7			
			H02520.00 05/12/66 5000 1215	3.60	9.7 111	-- 73	7.6 8.2	172 --	14 --	6.7 31	8.0 1.2	2.2 3	0.0 1.46	0.0 1.46	11 23	7.0 .14	0.5 .01	-- --	.00 --	10 104	76 3		
H02520.00 06/01/66 5000 1415		8.9 100	-- 71	8.0 8.1	140 --	-- --	7.1 .31	-- --	0.0 1.51	92 --	-- --	3.3 .15	-- --	.00 --	-- --	-- --	-- --	-- --	-- --	78 3			
			H02520.00 07/12/66 5000 0830		9.1 102	-- 70	8.1 8.1	170 --	-- --	5.1 .22	-- --	0.0 1.46	49 --	-- --	3.9 .11	-- --	.00 --	-- --	-- --	-- --	78 5		
H02520.00 09/01/66 5000 1415		11.3 136	-- 77	7.3 8.5	144 --	14 --	7.4 34	5.4 1.4	1.2 3	0.0 1.46	0.0 1.46	10 21	4.3 .12	1.1 .02	-- --	.10 --	-- --	-- --	119 94	40 6			

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	SUN TIME	TEMP	PH	MINERAL CONSTITUENTS IN								MILLIGRAMS PER LITER PERCENT REACTANCE VALUE								MILLIGRAMS PER LITER										
					LAH FLU	EC FLU	CA	MG	NA	K	CU3	HC03	SO4	CL	N03	F	H	SI02	SUM	TDS	TH NCH										
					CALAVERAS RIVER AT JENNY LIND (16a)																										
H02590.00 10/13/65 0415	1.39	9.2	--	4.2	154	--	--	5.0	--	0.0	74	--	2.7	--	--	.00	--	--	--	69											
	18	93	60	7.3				.22		1.28	.08									5											
H02590.00 11/09/65 1000	1.32	10.7	--	4.2	157	--	--	4.0	--	0.0	80	--	2.2	--	--	.00	--	--	--	71											
	15	104	57	7.7				.20		1.31	.06									6											
H02590.00 12/06/65 1115	1.50	11.1	--	8.1	141	--	--	5.2	--	0.0	86	--	4.1	--	--	.00	--	--	--	79											
	24	99	51	8.2				.23		1.41	.12									9											
H02590.00 01/06/66 1120	4.66	11.9	--	4.2	175	--	--	4.4	--	0.0	85	--	3.4	--	--	.00	--	--	--	76											
	1040	105	49	7.9				.21		1.39	.10									7											
H02590.00 02/01/66 1030	1.85	11.1	--	4.2	212	--	--	7.7	--	0.0	90	--	6.5	--	--	.02	--	--	--	89											
	55	98	49	7.7				.33		1.48	.14									15											
H02590.00 03/01/66 1000	1.60	10.9	--	4.3	226	--	--	7.1	--	1.0	107	--	7.9	--	--	.01	--	--	--	100											
	31	98	51	7.9				.31		.03	1.75		.17							11											
H02590.00 04/11/66 1230	1.90	12.3	--	4.4	144	--	--	5.7	--	2.0	88	--	2.8	--	--	.00	--	--	--	84											
	61	123	59	8.3				.25		.07	1.44		.04							9											
H02590.00 05/04/66 0830	2.35	11.0	--	4.0	179	--	--	7.3	--	2.1	89	--	4.1	--	--	.00	9.0	116	80												
	130	102	53	7.7				.60		.21	1.46		.21							7											
								.32		1.2	.05		.20																		
H02590.00 06/03/66 0415	2.22	10.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
	104	101	53	7.7																											
H02590.00 07/05/66 1300	2.51	11.3	--	4.3	179	--	--	4.7	--	0.0	94	--	2.9	--	--	.01	--	--	--	89											
	108	110	57	8.1				.20		1.54	.08									12											
H02590.00 08/09/66 1200	2.53	10.3	--	4.0	144	--	--	4.4	--	0.0	91	--	3.8	--	--	.00	--	--	--	80											
	172	102	58	7.9				.20		1.49	.11									6											
H02590.00 09/01/66 1015	136	11.2	--	7.4	144	--	--	4.4	--	2.1	90	--	3.4	--	--	.10	--	--	--	83											
								.61		.21	1.48		.20							9											
								.32		1.1	.6		.82																		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT. LONG.	SALINITY	TEMP	PH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂	TDS SUM	TH NCH
					B L 1150.00 COSUMNES RIVER AT MICHIGAN BAR (94)													
2.38 11/02/65 1145	10.5 105	-- 60	7.1 7.5	-- --	4.1 1.4	-- --	0.0 0.0	4.5 .74	-- --	1.3 .04	-- --	.00 --	-- --	-- --	36 0			
4.65 11/02/65 1200	12.5 107	-- 47	7.4 7.7	-- --	5.0 2.2	-- --	0.0 0.0	6.0 .94	-- --	3.6 .10	-- --	.00 --	-- --	-- --	56 7			
3.69 03/01/66 1600	11.8 105	-- 50	7.2 7.7	-- --	4.7 2.0	-- --	0.0 0.0	5.8 .95	-- --	2.7 .04	-- --	.01 --	-- --	-- --	54 7			
3.48 05/12/66 1100	9.9 106	-- 65	7.4 7.3	0.6 4.4	1.5 1.2	2.5 1.1	0.9 0.2	3.0 .49	0.0 0.0	3.0 0.6	1.1 .03	.00 5	15 46	47 0	22 0			
2.69 07/05/66 1030	8.4 104	-- 79	7.4 7.7	-- --	2.7 1.2	-- --	0.0 0.0	3.1 .61	-- --	1.0 .03	-- --	.00 --	-- --	-- --	22 0			
17 09/14/66 1200	9.8 116	-- 75	7.6 7.9	7.4 4.7	1.3 1.1	3.0 1.4	1.1 0.3	3.2 .52	0.0 0.0	3.2 .02	0.8 .02	.00 .01	-- 2	58 31	24 0			

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP SAT	PH L3H FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	H	SI02	TDS SUM	TH NCH
B 2 1170.00 MOKELUMNE RIVER BELOW CAMANCHE DAM (23a)																	
H21170.00	6.84	10.1	--	--	--	2.3	--	0.0	2.0	--	0.8	--	--	.00	--	--	16
11/09/65 5000	1960	105	63	6.7		.10		.33			.02						0
H21170.00	4.79	12.3	--	--	--	3.7	--	0.0	2.2	--	1.5	--	--	.00	--	--	19
01/06/66 5000	495	107	48	7.3		.16		.36			.04						1
H21170.00	5.74	11.9	--	--	--	2.5	--	0.0	1.9	--	1.6	--	--	.00	--	--	17
03/01/66 5000	1060	105	49	7.1		.11		.31			.05						2
H21170.00	4.91	11.5	--	5.4	1.1	2.6	0.8	0.0	2.1	3.0	1.9	0.8	--	.00	9.2	36	18
05/06/66 5000	555	107	53	6.7	.27	.09	.11	.02	.34	.06	.05	.01				35	1
0745				55	18	22	4		74	13	11	2					
H21170.00	4.54	11.2	--	--	--	2.7	--	0.0	2.8	--	1.2	--	--	.00	--	--	21
07/05/66 5000	570	117	63	6.9		.12		.46			.03						0
1215																	
H21170.00	10.2	--	--	5.6	1.4	3.4	0.9	0.0	2.5	2.1	2.4	0.3	--	.10	--	45	20
09/01/66 5000	363	106	63	7.1	.28	.12	.15	.02	.41	.04	.07					28	0
0930				49	21	26	4		79	4	13						

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. /	DO SAT	TEMP	PH	MINERAL CONSTITUENTS IN				MILLIEQUIVALENT PER LITER				MILLIGRAMS PER LITER						
					FC LHM FLD	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	S102	TDS SUM	
					CALAVERAS RIVER BELOW NEW HOGAN DAM (16c)														
H25300.00 10/04/65 0830	1.32	13.0	--	8.2	152	--	--	5.0	--	0.0	1.25	--	2.8	--	--	.01	--	--	67
	90							.22					.08					5	
H25300.00 11/01/65 0930	0.90	13.3	--	8.4	157	--	--	4.4	--	1.0	.83	--	2.8	--	--	.01	--	--	70
	25	124	54					.21		.03	1.36		.08					1	
H25300.00 12/02/65 0915	0.90	12.0	--	8.5	175	--	--	5.1	--	5.0	.84	--	3.9	--	--	.00	--	--	78
	25	111	52					.22		.17	1.38		.11					1	
H25300.00 01/03/66 1010	0.90	13.2	--	7.4	140	--	--	5.2	--	0.0	.84	--	3.8	--	--	.00	--	--	78
	31	116	48					.24			1.38		.11					9	
H25300.00 02/07/66 0935	0.90	13.7	--	8.2	149	--	--	5.5	--	0.0	.89	--	3.3	--	--	.01	--	--	82
		119	47					.24			1.46		.09					9	
H25300.00 03/07/66 0910	0.90	10.8	--	8.1	145	--	--	5.5	--	0.0	.88	--	2.2	--	--	.00	--	--	83
	30	97	50					.24			1.44		.06					11	
H25300.00 04/04/66 0820	55	11.6	--	7.5	144	--	--	5.4	--	0.0	.87	--	4.5	--	--	.00	--	--	81
		107	52					.24			1.43		.13					10	
H25300.00 05/03/66 0700	1.51	--	--	7.4	178	21	8.4	5.1	1.8	0.0	.87	1.3	2.2	1.5	--	.00	10	110	79
	153		50			1.05	.53	.22	.05		1.43	.27	.06	.02				104	8
						57	29	12	3		.80	1.5	.3						
H25300.00 06/00/66 0710	1.41	11.6	--	8.0	175	--	--	5.1	--	0.0	.91	--	3.2	--	--	.00	--	--	82
	125	107	52					.22			1.49		.09					8	
H25300.00 07/11/66 0800	--	--	--	8.2	143	--	--	5.5	--	0.0	.93	--	3.4	--	--	.00	--	--	82
								.24			1.53		.10					6	
H25300.00 08/04/66 0815	1.48	11.6	--	7.4	142	--	--	5.3	--	0.0	.92	--	3.4	--	--	.00	--	--	82
		110	54					.24			1.51		.10					7	
H25300.00 09/12/66 0730	--	--	53	8.0	146	21	8.4	5.5	2.1	0.0	.94	4.5	3.9	1.4	--	.10	--	110	87
						1.05	.69	.24	.05		1.54	.20	.11	.02				94	10
						52	34	12	2		.82	1.1	.6						

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	TEMP	PH	FC FLD	MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER					
					Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂	TOS	TH		
B 2 5898.50 CALAVERAS RIVER ABOVE NEW HOGAN RESERVOIR (16d)																				
25498.50 10/04/65 0745	10.4	--	6.4	2.2	--	--	9.4	--	--	3.0	120	--	--	4.1	--	--	.01	--	--	112
	101	56					.41			.10	1.97			.26					9	
25498.50 11/01/65 0845	11.9	--	6.2	2.69	--	--	9.4	--	--	0.0	133	--	--	4.2	--	--	.01	--	--	111
	111	54					.41			2.14			.26						9	
25498.50 12/02/65 0810	13.9	--	6.4	2.24	--	--	6.4	--	--	5.0	93	--	--	4.5	--	--	.00	--	--	98
	105	44					.30			.17	1.53			.14					13	
25498.50 01/03/66 0935	14.7	--	6.0	1.40	--	--	5.5	--	--	0.0	79	--	--	4.8	--	--	.00	--	--	76
	115	40					.24			1.30			.14						11	
25498.50 02/07/66 0900	14.8	--	7.2	1.29	--	--	4.4	--	--	0.0	59	--	--	3.0	--	--	.00	--	--	52
	120	42					.21			.97			.08						4	
25498.50 03/07/66 0840	--	--	6.2	2.09	--	--	7.2	--	--	0.0	102	--	--	3.9	--	--	.00	--	--	91
	52						.31			1.67			.11						8	
25498.50 04/04/66 0910	12.6	--	6.2	2.04	--	--	5.4	--	--	0.0	105	--	--	5.3	--	--	.00	--	--	89
	132	62					.23			1.72			.15						3	
25498.50 05/03/66 0745	--	--	7.2	2.20	--	--	7.1	--	1.4	0.0	111	--	1.4	4.6	--	--	.00	16	138	96
	64						.31		.05	1.82			.13						132	5
							1.4		2	.13			.6							
25498.50 06/04/66 0800	8.0	--	6.5	2.48	--	--	6.6	--	--	4.0	114	--	--	2.3	--	--	.00	--	--	109
	84	62					.37			.13	1.44			.18					6	
25498.50 07/11/66 0900	10.4	--	7.4	2.13	--	--	1.0	--	--	0.0	142	--	--	4.0	--	--	.00	--	--	126
	112	65					.44			2.33			.25						10	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	TEMP F	PH	EC UMH FLO	MINERAL CONSTITUENTS IN					MILLIEQUIVALENTS PER LITER PERCENT REACTIVE VALUE					MILLIGRAMS PER LITER TDS				
					CA	Mg	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	5102	SUM		
B 9 1210.00 SACRAMENTO RIVER AT RIO VISTA (16)																			
491210.00 10/06/65 1115	4.22	8.3 89	-- 66	8.2 7.3	161	--	--	1.0 .44	--	0.0	76	--	6.0 1.25	--	.00	--	-- 59 0		
491210.00 11/01/65 1100	5.58	8.5 87	-- 62	8.2 7.3	144	--	--	8.4 .36	--	0.0	70	--	4.7 1.15	--	.01	--	-- 53 0		
491210.00 11/29/65 1245	4.45	10.2 94	-- 53	7.4 7.5	161	--	--	9.7 .42	--	0.0	70	--	6.9 1.15	--	.00	--	-- 57 0		
491210.00 01/03/66 1200	7.80	11.1 92	-- 45	8.2 7.5	179	--	--	11 .44	--	0.0	75	--	4.6 1.23	--	.01	--	-- 60 0		
491210.00 02/02/66 1315	2.75	10.7 92	-- 48	8.2 7.5	232	--	--	17 .74	--	0.0	91	--	12 1.49	--	.02	--	-- 78 4		
491210.00 03/02/66 1400	4.30	10.6 96	-- 52	8.2 7.5	225	--	--	14 .61	--	0.0	98	--	11 1.61	--	.01	--	-- 81 1		
491210.00 04/06/66 1330	4.25	9.4 96	-- 62	8.1 7.3	132	--	--	6.4 .30	--	0.0	61	--	4.6 1.00	--	.01	--	-- 51 1		
491210.00 05/03/66 1215	4.30	8.0 86	-- 66	8.0 7.3	164	13	6.0	11 .44 3.0	0.0 .02 1	68 15 69	15 .31 19	7.5 1.12 1.1	1.2 1.02 1	--	.00	16 104 103	57 1 1		
491210.00 06/04/66 1245	2.27	7.7 84	-- 68	8.1 7.9	224	--	--	15 .70	--	0.0	94	--	12 1.54	--	.02	--	-- 76 0		
491210.00 07/12/66 1115	5.40	8.6 95	-- 69	7.4 7.7	195	--	--	15 .65	--	0.0	75	--	16 1.23	--	.01	--	-- 66 5		
491210.00 08/12/66 1045	5.35	8.0 91	-- 72	7.7 7.7	183	--	--	15 .65	--	0.0	85	--	4.8 1.39	--	.00	--	-- 64 0		
491210.00 09/12/66 1200		8.2 90	-- 69	7.4 7.8	262	10	11	21 .90 3.4	1.5 .04 3.4	108 1.77 71	15 .31 13	13 1.37 15	2.1 .03 1	--	.10	--	164 133 0		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. O	TEMP SAT	PH	F.C. L.A.H. F.L.D.	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER					MILLIGRAMS PER LITER					TDS SUM	TH NCH				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F			R	S102		
B 9 1260.00 LINDSEY SLOUGH NEAR RIO VISTA (110)																				
A91260.00 10/06/65 1230		--	--	8.3	216	--	--	15	--	1.0 .03	97 1.59	--	4.5 .27	--	--	0.0	--	--	77 0	
A91260.00 11/11/04/65 1430		--	--	8.1	159	--	--	9.3 .40	--	0.0	72 1.18	--	5.1 .14	--	--	0.0	--	--	56 0	
A91260.00 12/10/65 0830		--	--	8.0	176	--	--	11 .44	--	0.0	73 1.20	--	4.0 .23	--	--	0.2	--	--	62 2	
A91260.00 01/14/66 1230		--	--	7.9	259	--	--	14 .74	--	0.0	103 1.69	--	12 .34	--	--	0.3	--	--	90 6	
A91260.00 02/09/66 1530		--	--	8.4	411	--	--	37 1.61	--	2.0 .07	139 2.24	--	28 .79	--	--	0.6	--	--	123 6	
A91260.00 03/03/66 1530		--	--	8.3	377	--	--	27 1.17	--	2.0 .07	158 2.54	--	21 .59	--	--	0.5	--	--	139 6	
A91260.00 04/14/66 0745		--	--	8.2	262	--	--	14 .74	--	0.0	108 1.77	--	23 .65	--	--	0.0	--	--	92 4	
A91260.00 05/20/66 1050		--	--	7.9	238	15 .75	11 .40	14 .70	0.9 .02	0.0	97 1.59	21 .44	14 .39	1.5 .02	--	0.1	15	160	82	3
A91260.00 06/17/66 1100		--	--	8.3	253	--	--	17 .74	--	1.0 .03	101 1.66	--	14 .39	--	--	0.1	--	--	88 4	
A91260.00 07/15/66 1000		--	--	8.2	237	--	--	17 .74	--	0.0	97 1.59	--	12 .34	--	--	0.0	--	--	82 3	
A91260.00 09/06/66- 1510		--	--	7.9	235	15 .75	11 .40	17 .74	1.6 .04	0.0	104 1.71	15 .31	11 .31	1.6 .03	--	0.1	19	147	82	0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. O	DO SAT	TEMP F/D	PH F/D	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
					EC F/D	CA MG	NA MG	K MG	CO ₂	HCO ₃	SU ₄	CL	NO ₃	F	H	SI02	TDS SUM	TH NCH	
					DELTA CROSS CHANNEL NEAR WALNUT GROVE (98)														
H91700.00 10/06/65 5000 0830	3.92	8.2 87	-- 65	8.2 7.3	148	--	8.4 .37	--	0.0	7.2	--	2.6 .13	--	--	.01	--	57 0		
H91700.00 11/01/65 5000 1000	4.78	9.3 93	-- 60	8.1 7.3	134	--	7.5 .33	--	0.0	6.8	--	2.7 .04	--	--	.00	--	50 0		
H91700.00 11/29/65 5000 1345	3.03	10.6 96	-- 52	9.0 7.5	133	--	8.2 .30	--	0.0	6.3	--	2.8 .14	--	--	.00	--	51 0		
H91700.00 01/03/66 5000 1330	4.70	11.4 94	-- 45	7.4 7.5	149	--	8.4 .34	--	0.0	7.1	--	2.5 .16	--	--	.00	--	55 0		
H91700.00 02/09/66 5000 1415	3.58	11.0 95	-- 48	8.0 7.5	153	--	7.4 .34	--	0.0	6.8	--	2.0 .14	--	--	.01	--	58 2		
H91700.00 03/08/66 5000 1445	4.35	10.9 100	-- 53	8.2 7.5	204	--	14 .61	--	0.0	7.0	--	2.4 .27	--	--	.01	--	75 1		
H91700.00 04/06/66 5000 1430	2.85	9.5 100	-- 65	8.0 7.3	121	--	7.2 .31	--	0.0	5.8	--	2.3 .04	--	--	.00	--	48 1		
H91700.00 05/03/66 5000 1315	4.30	8.3 90	-- 67	7.4 7.3	129	1.2 4.6	7.2 .36	1.1 .03	0.0	6.0	8.0 .17	2.1 .12	0.8 .01	--	.00	16 84	48 0		
H91700.00 06/08/66 5000 1330	1.90	7.7 87	-- 71	8.2 7.7	219	--	14 .65	--	0.0	7.5	--	1.1 .31	--	--	.00	--	74 0		
H91700.00 07/12/66 5000 1215	4.48	8.2 90	-- 69	7.3 7.5	149	--	9.4 .43	--	0.0	7.7	--	2.8 .25	--	--	.00	--	61 0		
H91700.00 08/12/66 5000 1215	4.66	7.4 84	-- 72	7.4 7.3	144	--	11 .44	--	0.0	7.8	--	2.6 .21	--	--	.00	--	61 0		
H91700.00 09/12/66 5000 1415	7.5 84	-- 70	-- 75	8.3 7.5	244	1.6 4.0	12 .49	1.3 .03	0.0	11.2	1.3 .27	1.3 .37	1.5 .02	--	.10	--	151 131		

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. SAT	TEMP °C	PH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TDS SUM	TH NCH			
				FLO	LAK FLO	FC FLO	CA	Mg	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃			F	H	SiO ₂
B 9 1849.90 SACRAMENTO RIVER AT FREEPORT (15b)																				
491849.90 10/06/65 5000 0730	3.27	9.2 95	-- 63	8.2 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	0.0 1.20	7.3 1.17	-- 1.17	-- 1.17	-- 1.17	-- 1.17	-- 1.17	-- 1.17	-- 1.17	56 0		
491849.90 11/01/65 5000 0900	2.55	9.7 96	-- 59	8.1 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	0.0 1.12	6.8 1.11	-- 1.11	-- 1.11	-- 1.11	-- 1.11	-- 1.11	-- 1.11	-- 1.11	52 0		
491849.90 11/29/65 5000 1500	6.08	11.0 100	-- 52	7.9 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	0.0 1.07	6.2 1.12	-- 1.12	-- 1.12	-- 1.12	-- 1.12	-- 1.12	-- 1.12	-- 1.12	51 0		
491849.90 01/03/66 5000 1425	6.95	11.7 97	-- 45	8.2 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	0.0 1.16	7.1 1.16	-- 1.16	-- 1.16	-- 1.16	-- 1.16	-- 1.16	-- 1.16	-- 1.16	56 0		
491849.90 02/09/66 5000 1515	8.20	11.1 96	-- 48	8.1 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	0.0 1.14	6.0 1.14	-- 1.14	-- 1.14	-- 1.14	-- 1.14	-- 1.14	-- 1.14	-- 1.14	52 3		
491849.90 03/08/66 5000 1530	3.65	10.9 100	-- 53	8.2 7.4	-- 7.4	-- 7.4	-- 7.4	-- 7.4	0.0 1.31	8.0 1.31	-- 1.31	-- 1.31	-- 1.31	-- 1.31	-- 1.31	-- 1.31	-- 1.31	65 0		
491849.90 04/06/66 5000 1530	6.10	9.8 100	-- 62	7.4 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	0.0 1.2	5.0 1.2	-- 1.2	-- 1.2	-- 1.2	-- 1.2	-- 1.2	-- 1.2	-- 1.2	40 0		
491849.90 05/03/66 5000 1430	2.60	8.8 96	-- 68	8.1 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	0.0 1.03	6.3 1.03	-- 1.03	-- 1.03	-- 1.03	-- 1.03	-- 1.03	-- 1.03	-- 1.03	52 1		
491849.90 06/08/66 5000 1445	2.21	7.9 87	-- 69	8.3 7.7	-- 7.7	-- 7.7	-- 7.7	-- 7.7	0.0 1.3	4.9 1.3	-- 1.3	-- 1.3	-- 1.3	-- 1.3	-- 1.3	-- 1.3	-- 1.3	72 0		
491849.90 07/12/66 5000 1345	2.33	8.9 98	-- 69	7.9 7.7	-- 7.7	-- 7.7	-- 7.7	-- 7.7	0.0 1.25	7.6 1.25	-- 1.25	-- 1.25	-- 1.25	-- 1.25	-- 1.25	-- 1.25	-- 1.25	61 0		
491849.90 08/12/66 5000 1315	3.13	8.4 95	-- 71	7.4 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	0.0 1.33	8.1 1.33	-- 1.33	-- 1.33	-- 1.33	-- 1.33	-- 1.33	-- 1.33	-- 1.33	61 0		
491849.90 09/12/66 5000 1515	8.4 94	8.4 94	-- 70	8.4 7.7	-- 7.7	-- 7.7	-- 7.7	-- 7.7	0.0 1.94	1.8 1.94	-- 1.94	-- 1.94	-- 1.94	-- 1.94	-- 1.94	-- 1.94	-- 1.94	157 137		

TABLE D 2
MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M.	WIND SPEED	TEMP	MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER							MILLIGRAMS PER LITER		
				PH	EC L/M FLD	CA	Mg	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SiO ₂	TDS	TH	NCH
				B 9 4120.10 LITTLE POTATO SLOUGH AT TERMINOUS (99)																
H94120.10 11/09/65 5000 1530	8.9	--	61	7.3	132	--	--	.83	--	0.0	.62	--	4.2	--	--	.00	--	--	48	0
	90									1.02	.12									
H94120.10 01/03/66 5000 1255	10.0	--	45	7.1	235	--	--	.61	--	0.0	.58	--	30	--	--	.00	--	--	76	29
	83									.95	.85									
H94120.10 03/01/66 5000 1445	10.6	--	51	7.2	193	--	--	.52	--	0.0	.65	--	20	--	--	.00	--	--	65	12
	95									1.07	.56									
H94120.10 05/12/66 5000 1220	8.1	--	67	7.3	221	15	7.8	.64	1.3	0.0	.75	15	20	0.5	--	.00	16	138	72	11
	87									1.23	.31	58	15	27				127	11	
H94120.10 07/04/66 5000 1230	7.4	--	72	7.3	204	--	--	.61	--	0.0	.81	--	17	--	--	.01	--	--	74	8
	84									1.33	.48									
H94120.10 09/12/66 5000 1330	7.5	--	74	7.3	242	20	11	24	1.7	0.0	1.22	15	20	1.1	--	.10	--	177	96	0
	87									2.00	.33	69	11	19				154	0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER			MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER				MILLIGRAMS PER LITER						
DATE	LAT	LONG	TEMP	PH	EC	LAH	FLD	CA	MG	NA	K	CO ₃	HCO ₃	SU ₄	CL	NO ₃	F	H	S102	TDS	TH		
TIME	SAMPLE																				SUM	NCH	
B 9 4300.00 MOKELOWNE RIVER AT WOODBRIDGE (23)																							
94300.00	11/01/65	5000	1400	13.5	10.0	--	7.5	4.0	--	--	2.1	--	0.0	19	--	1.0	--	--	.00	--	--	14	
				1750	103	63	6.7																0
94300.00	01/06/66	5000	0900	7.19	11.6	--	7.4	5.1	--	--	2.7	--	0.0	22	--	1.3	--	--	.00	--	--	18	
				401	100	48	7.3																0
94300.00	03/08/66	5000	1100	10.02	11.4	--	7.6	4.4	--	--	2.5	--	0.0	20	--	.6	--	--	.00	--	--	17	
				904	103	52	7.1																1
94300.00	05/03/66	5000	1145	3.42	9.6	--	7.3	5.2	1.3	3.2	1.1	0.0	22	4.0	1.5	0.6	--	.00	9.3	39	18		
					98	62	7.0	2.6	.11	.14	.03	2.6	2.5	6	.36	.05	.04	.01	2			37	0
94300.00	07/12/66	5000	0730	3.62	8.7	--	7.5	5.9	--	--	2.7	--	0.0	18	--	.4	--	--	.00	--	--	22	
				32	94	67	7.1																7
94300.00	09/16/66	5000	1015	34	9.0	--	7.8	6.0	1.1	2.7	0.9	0.0	29	2.3	2.0	0.8	--	.00	--	55	21		
					97	67	7.0	3.4	.09	.12	.02	.44	.05	.01	.4	.05	.01	2				31	0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.P.H. SAT	TEMP F	PH FID	PC FID	CA FID	Mg	NA	K	MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS SUM				
									CO ₃	HCO ₃	SU ₄	CL	NO ₃	F	H	SI	OH	NH
									B 9 5020.00 SAN JOAQUIN RIVER AT ANTIOCH (28)									
495020.00 10/04/65 5000 0930	8.6 93	-- 67	7.2 7.5	2.49	--	--	22 6.4	--	0.0	41 1.49	--	22 6.2	--	--	.01	--	--	13 0
495020.00 11/01/65 5000 1245	8.5 90	-- 65	7.3	2.55	--	--	24 1.04	--	0.0	76 1.25	--	32 9.0	--	--	.01	--	--	67 5
495020.00 12/01/65 5000 1330	8.8 82	-- 54	7.3	2.64	--	--	14 6.7	--	0.0	94 1.12	--	20 5.6	--	--	.00	--	--	62 6
495020.00 01/03/66 5000 1020	11.0 91	-- 45	7.5	2.44	--	--	26 1.13	--	0.6	60 1.12	--	36 1.02	--	--	.01	--	--	74 18
495020.00 02/04/66 5000 1115	10.4 91	-- 49	7.3	3.59	--	--	34 1.44	--	0.3	40 1.31	--	40 1.13	--	--	.02	--	--	96 31
495020.00 03/04/66 5000 1300	9.8 93	-- 56	7.3	3.44	--	--	34 1.44	--	0.0	42 1.34	--	41 1.16	--	--	.02	--	--	92 25
495020.00 04/05/66 5000 1400	9.0 95	-- 65	7.5	2.34	--	--	21 6.7	--	0.3	73 1.20	--	23 6.5	--	--	.00	--	--	70 10
495020.00 05/04/66 5000 1315	8.7 95	-- 68	7.5	3.32	14 4.5	5.0 4.1	34 1.44	1.0 2	0.0	60 4.4	21 4.5	55 5.2	0.4 0.1	--	.00	12	190 183	68 19
495020.00 06/04/66 5000 1130	9.55 88	-- 70	7.7	1.410	--	--	204 4.44	--	0.0	74 1.26	--	30 4.47	--	--	.02	--	--	188 124
495020.00 07/12/66 5000 1015	10.88 82	-- 70	7.7	4.00	--	--	88 2.44	--	0.0	40 1.44	--	120 4.41	--	--	.04	--	--	484 410
495020.00 08/12/66 5000 0945	10.98 91	-- 73	7.9	2.60	--	--	34 1.74	--	0.0	43 1.36	--	75 2.14	--	--	.02	--	--	301 233
495020.00 09/14/66 5000 1315	8.3 93	-- 70	8.0	4.1	11 4.5	24 1.44	124 5.44	6.0 1.5	0.0	40 1.47	44 4.4	217 6.12	1.5 0.2	--	.10	--	524 483	137 59

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME		G.P.M. L44 SAMPLE	TEMP SAT	PH L44 FLD	EC FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER					MILLIGRAMS PER LITER PERCENT REACTION VALUE					MILLIGRAMS PER LITER TDS SUM				
						CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SI02	TH		
B 9 5110.20 OLD RIVER AT MANDEVILLE ISLAND (112)																				
4.58	495110.20	9.3	100	--	7.1	7.5	--	--	2.0	.87	--	0.0	88	--	20	.56	--	.02	--	75
4.20	495110.20	8.7	90	--	7.2	7.3	--	--	2.5	1.14	--	0.0	81	--	32	.90	--	.00	--	80
5.90	495110.20	8.2	73	--	7.7	7.1	--	--	4.1	1.74	--	0.0	80	--	54	1.52	--	.04	--	92
5.70	495110.20	9.6	81	--	7.6	7.3	--	--	3.4	1.70	--	0.0	70	--	52	1.47	--	.02	--	108
6.55	495110.20	10.6	92	--	8.1	7.3	--	--	3.4	1.44	--	0.0	81	--	42	1.18	--	.05	--	98
5.95	495110.20	10.5	93	--	7.6	7.3	--	--	3.6	1.57	--	0.0	82	--	44	1.24	--	.01	--	102
5.40	495110.20	9.3	96	--	8.1	7.5	--	--	1.3	.57	--	0.0	64	--	10	.28	--	.00	--	62
3.40	495110.20	8.6	94	--	7.4	7.5	1.2	5.6	1.0	.44	.03	0.0	61	1.0	21	.28	.01	.00	14	102
3.1	495110.20	8.0	88	--	8.2	7.5	--	--	1.3	.57	--	0.0	73	--	13	.37	--	.00	--	63
5.05	495110.20	--	--	7.7	7.7	--	--	5.4	2.57	--	--	0.0	79	--	90	2.54	--	.01	--	96
2.65	495110.20	6.9	83	--	7.9	7.7	--	--	4.1	3.52	--	0.0	81	--	132	3.72	--	.01	--	103
8.8	495110.20	--	--	7.8	7.8	7.9	1.4	1.9	4.6	2.00	.07	0.0	83	2.4	82	.50	1.36	.02	--	251
100	09/01/66	1245	--	7.2	7.9	--	1.6	3.5	4.7	--	--	--	--	--	1.2	55	--	.00	--	229

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT LONG	TEMP F	PH LAK FLO	MINERAL CONSTITUENTS IN ROCK SLOUGH NEAR KNIGHTSEN (109)					MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS SUM				
				FC FLO	CA FLO	MG FLO	NA FLO	K FLO	CO ₃	HC0 ₃	S0 ₄	CL	N0 ₃	F	B	SI0 ₂	TH NCH	
B 9 5220.00																		
495220.00	2.35	7.2	--	4.2	240	--	24	--	0.0	95	--	24	--	--	.01	--	84	
10/06/65	5000	79	68	7.3			1.04		1.56			.64					6	
1015																		
495220.00	4.58	6.6	--	4.2	340	--	34	--	0.0	99	--	48	--	--	.01	--	100	
11/04/65	5000	70	65	7.2			1.64		1.62			1.35					19	
1330																		
495220.00	5.36	7.8	--	7.4	572	--	64	--	0.0	108	--	85	--	--	.06	--	128	
12/01/65	5000	71	52	7.1			2.74		1.77			2.40					40	
1245																		
495220.00	5.04	10.4	--	7.9	644	--	70	--	0.0	94	--	88	--	--	.04	--	144	
01/03/66	5000	85	44	7.5			3.04		1.54			2.48					67	
1065																		
495220.00	3.75	10.2	--	4.2	434	--	104	--	0.0	128	--	135	--	--	.09	--	210	
02/08/66	5000	90	50	7.3			4.74		2.10			3.81					105	
1430																		
495220.00	3.20	8.3	--	4.2	425	--	41	--	0.0	107	--	124	--	--	.05	--	186	
03/09/66	5000	79	56	7.3			3.94		1.75			3.50					99	
1230																		
495220.00	3.05	8.2	--	4.0	325	--	24	--	0.0	41	--	34	--	--	.01	--	90	
04/05/66	5000	89	67	7.3			1.24		1.33			.96					24	
1330																		
495220.00	3.65	7.4	--	7.7	172	--	5.1	1.1	0.0	61	--	13	0.7	--	.00	14	56	
05/02/66	5000	82	69	7.3			.42	.03	1.00	.24		.37	.01				6	
1340							25	2		.60		17	22					
495220.00	7.8	--	--	4.2	214	--	14	--	0.0	41	--	16	--	--	.01	--	68	
06/04/66	5000	87	70	7.3			.70		1.33			.45					2	
1015																		
495220.00	4.42	7.0	--	7.4	663	--	77	--	0.0	84	--	127	--	--	.01	--	115	
07/13/66	5000	82	75	7.5			3.34		1.38			3.54					46	
1500																		
495220.00	4.60	6.2	--	7.4	761	--	--	--	0.0	61	--	107	--	--	.01	--	115	
08/09/66	5000	76	80	7.4			4.24		1.33			4.71					49	
1300																		
495220.00	8.2	--	--	4.0	442	--	14	43	0.0	89	--	25	73	1.8	.00	--	97	
09/14/66	5000	93	72	7.7			1.15	1.87	1.46	.52		2.06	.03				24	
1220							21	30	.36			13	51					

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLE	D.O SAT	TEMP	PH		EC FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER						MILLIEQUIVALENT PER LITER						MILLIGRAMS PER LITER			
				LAT FLD	LAT FLD		CA	MG	NA	K	CO3	HC03	504	CL	NO3	F	B	S102	TDS SUM	TH	NCH					
GRANT LINE CANAL AT TRACY ROAD BRIDGE (103a)																										
R95300.00 10/07/65 5000 1415	3.70	9.5 108	-- 72	8.2 7.7	4.15	--	--	4.2 1.44	--	0.0	92	--	50	--	--	.01	--	--	102	27						
R95300.00 11/03/65 5000 1445	4.80	8.9 92	-- 63	8.2 7.3	377	--	--	4.0 1.74	--	0.0	64	--	56	--	--	.00	--	--	84	28						
R95300.00 12/02/65 5000 1315	5.07	9.2 83	-- 52	7.9 7.1	217	--	--	2.0 .87	--	0.0	56	--	24	--	--	.01	--	--	56	10						
R95300.00 01/04/66 5000 1030	4.70	11.2 93	-- 45	7.6 7.3	165	--	--	1.4 .61	--	0.0	48	--	15	--	--	.01	--	--	47	8						
R95300.00 02/08/66 5000 1145	6.10	10.1 89	-- 50	8.0 7.3	476	--	--	5.2 2.24	--	0.0	88	--	67	--	--	.03	--	--	108	36						
R95300.00 03/07/66 5000 1300	3.45	11.0 105	-- 56	8.1 7.5	547	--	--	6.2 2.70	--	0.0	96	--	84	--	--	.02	--	--	126	48						
R95300.00 04/05/66 5000 1115	4.20	15.2 170	-- 70	8.0 8.4	1050	--	--	12.2 5.31	--	0.0	162	--	170	--	--	.04	--	--	240	107						
R95300.00 05/02/66 5000 1100	2.65	12.6 142	-- 71	7.4 8.6	1120	58 2.89	28 2.30	127 5.52	4.6 .12	0.0	182	81	207	1.7	--	.03	11	624	260							
R95300.00 06/07/66 5000 1030	5.15	8.2 90	-- 59	8.6 8.5	1130	--	--	12.5 5.44	--	8.0	176	--	215	--	--	.03	--	--	268	110						
R95300.00 07/11/66 5000 1115	10.32	8.7 101	-- 74	8.5 8.7	1160	--	--	13.0 5.66	--	0.8	174	--	222	--	--	.04	--	--	273	125						
R95300.00 08/09/66 5000 1115	10.93	10.9 137	-- 82	8.0 8.7	1130	--	--	12.5 5.44	--	0.0	190	--	209	--	--	.04	--	--	254	98						
R95300.00 09/14/66 5000 0930		12.7 142	-- 70	8.3 8.5	1270	58 2.89	34 2.79	134 5.47	5.4 .14	0.0	209	44	226	4.0	--	.40	--	725	285							

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLE	DO SAT	TEMP FLD	PH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALU				MILLIGRAMS PER LITER					
					CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	N/3	F	M	S102	TDS SUM	TH NCH
B 9 5320.20 OLD RIVER AT ORWOOD BRIDGE (108)																		
H95320.20 10/14/65 5000 1000	7.3 81	-- 68	-- 7.3	-- --	-- --	27 1.17	-- --	0.0 1.54	94	-- --	32 .90	-- --	-- --	.01	-- --	-- --	93 16	
H95320.20 11/09/65 5000 1415	8.8 91	-- 63	8.2 7.3	-- --	-- --	2.00	46 1.41	0.0 1.41	86	-- --	67 1.89	-- --	-- --	.01	-- --	-- --	105 35	
H95320.20 12/06/65 5000 1500	9.0 78	-- 49	7.4 7.1	-- --	-- --	26 1.14	58 .95	0.0 1.44	88	-- --	32 .90	-- --	-- --	.04	-- --	-- --	64 17	
H95320.20 01/06/66 5000 1430	10.4 91	-- 49	7.6 7.3	-- --	-- --	26 1.13	56 .92	0.0 1.44	86	-- --	31 .87	-- --	-- --	.01	-- --	-- --	68 22	
H95320.20 02/09/66 5000 1030	9.4 83	-- 50	8.1 7.1	-- --	-- --	74 3.22	88 1.44	0.0 1.44	88	-- --	97 2.74	-- --	-- --	.06	-- --	-- --	148 76	
H95320.20 03/09/66 5000 1115	8.1 76	-- 55	7.4 7.1	-- --	-- --	84 3.65	88 1.44	0.0 1.44	88	-- --	113 3.19	-- --	-- --	.05	-- --	-- --	190 118	
H95320.20 04/13/66 5000 1165	8.5 90	-- 65	8.2 7.3	-- --	-- --	22 .96	75 1.23	0.0 1.23	75	-- --	46 1.30	-- --	-- --	.00	-- --	-- --	78 17	
H95320.20 05/13/66 5000 0810	7.3 80	-- 68	7.3 7.3	1.3 6.5	1.2 4.9	1.1 5.2	61 25	0.0 1.00	61	1.2 1.7	14 .39	0.7 0.1	-- --	.00	14 108	57 7		
H95320.20 06/03/66 5000 1015	7.8 85	-- 67	7.7 7.3	-- --	-- --	15 .65	75 1.23	0.0 1.23	75	-- --	15 .42	-- --	-- --	.00	-- --	-- --	63 2	
H95320.20 07/04/66 5000 1045	7.2 85	-- 75	7.7 7.5	-- --	-- --	50 2.16	84 1.38	0.0 1.38	84	-- --	76 2.14	-- --	-- --	.01	-- --	-- --	94 25	
H95320.20 08/12/66 5000 0900	7.2 86	-- 77	7.4 7.5	-- --	-- --	77 3.35	85 1.39	0.0 1.39	85	-- --	125 3.53	-- --	-- --	.00	-- --	-- --	114 45	
H95320.20 09/13/66 5000 1245	8.4 96	-- 72	7.4 7.7	4.34 1.00	10 .42	47 2.04	87 35	0.0 1.43	87	3.2 1.7	69 1.95	1.8 0.3	-- --	.10	-- --	237 225	93 22	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME		LAT	LONG	TEMP	PH	EC µM	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER					MILLIGRAMS PER LITER					TDS SUM		TH NCH	
							CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F				H
B 9 5340.00 OLD RIVER AT CLIFTON COURT FERRY (104)																				
2.54	495340.00	9.1	10/07/65	5000	1130	71	7.7	414	--	4.2	1.43	--	0.0	91	--	60	--	.02	--	97
4.12	495340.00	9.2	11/03/65	5000	1315	64	7.3	411	--	4.3	1.47	--	0.0	75	--	64	--	.00	--	92
5.49	495340.00	--	12/02/65	5000	1430	51	7.3	320	--	3.2	1.34	--	0.0	72	--	40	--	.02	--	76
5.22	495340.00	10.9	01/04/66	5000	1145	45	7.3	215	--	2.1	.87	--	0.0	52	--	24	--	.01	--	54
4.70	495340.00	10.1	02/04/66	5000	1330	51	7.3	552	--	6.2	2.70	--	0.0	94	--	74	--	.04	--	122
3.20	495340.00	11.3	03/07/66	5000	1415	55	7.7	583	--	6.6	2.47	--	0.0	100	--	90	--	.02	--	130
3.05	495340.00	8.6	04/05/66	5100	1245	68	7.5	505	--	5.0	2.14	--	0.0	92	--	71	--	.02	--	128
2.25	495340.00	8.1	05/02/66	5000	1230	72	7.7	324	21	4.0	3.2	1.5	0.0	77	24	44	1.4	.01	13	88
3.90	495340.00	7.1	06/07/66	5100	1200	70	7.3	234	--	1.4	.74	--	0.0	78	--	22	--	.01	--	72
10.73	495340.00	7.3	07/11/66	5000	1215	74	7.4	456	--	5.0	2.14	--	0.0	84	--	75	--	.01	--	99
11.03	495340.00	6.9	08/04/66	5000	1215	78	7.3	540	--	6.4	3.00	--	0.0	81	--	115	--	.03	--	101
8.5	495340.00	8.5	09/14/66	5100	1045	70	7.7	422	15	1.4	4.0	1.6	0.0	89	24	69	0.8	.20	--	96

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	TEMP F/°C	PH F/°C	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS SUM					
				Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	5102	TH	
B 9 5619.80 SAN JOAQUIN RIVER NEAR RINDGE PUMP (27)																	
0.51 495619.40 10/07/65 0815	4.6 51	-- 69	8.3 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 3.0 1.0	137 2.25	-- 93	-- 2.62	-- 93	-- 2.65	-- 94	-- 2.65	-- 94	-- 2.65
2.17 495619.40 11/03/65 0915	7.3 77	-- 65	8.1 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 0.0 1.80	110 1.80	-- 94	-- 2.65	-- 94	-- 2.65	-- 94	-- 2.65	-- 94	-- 2.65
0.72 495619.40 12/02/65 0930	7.4 66	-- 51	7.4 7.1	-- 7.1	-- 7.1	-- 7.1	-- 7.1	-- 0.0 1.21	74 1.21	-- 42	-- 1.18	-- 42	-- 1.18	-- 42	-- 1.18	-- 42	-- 1.18
4.10 495619.40 01/04/66 1420	10.1 83	-- 45	7.2 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 0.0 1.03	63 1.03	-- 38	-- 1.07	-- 38	-- 1.07	-- 38	-- 1.07	-- 38	-- 1.07
3.28 495619.40 02/04/66 0915	8.7 76	-- 49	7.2 7.1	-- 7.1	-- 7.1	-- 7.1	-- 7.1	-- 0.0 1.39	85 1.39	-- 66	-- 1.86	-- 66	-- 1.86	-- 66	-- 1.86	-- 66	-- 1.86
0.70 495619.40 03/07/66 1000	9.3 88	-- 55	8.1 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 0.0 1.90	116 1.90	-- 110	-- 3.10	-- 110	-- 3.10	-- 110	-- 3.10	-- 110	-- 3.10
1.45 495619.40 04/05/66 0900	9.0 94	-- 64	8.2 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	-- 0.0 1.61	94 1.61	-- 80	-- 2.26	-- 80	-- 2.26	-- 80	-- 2.26	-- 80	-- 2.26
3.50 495619.40 05/02/66 0400	9.9 108	-- 68	7.2 8.1	2.6 1.30	1.2 2.9	4.4 2.07	2.7 2	0.0 1.49	91 3.4	41 1.4	73 2.06	1.5 1.02	-- 6.4	-- 255	-- 255	-- 255	-- 255
3.00 495619.40 06/07/66 0400	7.1 78	-- 69	8.2 7.5	-- 7.5	-- 7.5	-- 7.5	-- 7.5	-- 0.0 1.68	90 1.68	-- 39	-- 1.10	-- 39	-- 1.10	-- 39	-- 1.10	-- 39	-- 1.10
2.73 495619.40 07/11/66 0400	6.3 74	-- 75	7.4 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 0.0 1.54	94 1.54	-- 44	-- 1.24	-- 44	-- 1.24	-- 44	-- 1.24	-- 44	-- 1.24
3.62 495619.40 08/02/66 0815	6.3 76	-- 78	7.4 7.3	-- 7.3	-- 7.3	-- 7.3	-- 7.3	-- 0.0 1.66	89 1.66	-- 54	-- 1.52	-- 54	-- 1.52	-- 54	-- 1.52	-- 54	-- 1.52
7.4 495619.40 09/14/66 0915	84 90	-- 71	8.1 7.5	2.1 1.05	1.1 2.4	3.7 1.61	2.8 2	0.0 1.66	101 4.6	14 1.0	55 4.3	3.3 1.05	-- 229	-- 198	-- 198	-- 229	-- 198

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLER	DO TEMP SAT	PH FLO FLO	EC FLO FLO	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER				
					CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	S102	TDS SUM	TH NCH	
B 9 5820.00 SAN JOAQUIN RIVER AT MOSSDALE (102)																			
495820+00 10/07/65 5000 1015	3.08	8.4 73	-- 69 7.5	-- 392	-- 40 1.74	-- 0.0 1.49	-- 91 1.55	-- 55 1.55	-- 1.49	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	93 19
495820+00 11/03/65 5000 1145	2.20	9.3 95	-- 62 7.3	-- 452	-- 44 2.04	-- 0.0 1.38	-- 84 1.95	-- 69 1.95	-- 1.38	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	100 31
495820+00 12/02/65 5000 1130	5.36	9.5 86	-- 52 7.1	-- 193	-- 17 0.74	-- 0.0 0.85	-- 52 0.56	-- 20 0.56	-- 0.85	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	-- 0.01	52 10
495820+00 01/04/66 5000 1305	7.40	11.1 92	-- 45 7.3	-- 178	-- 15 0.65	-- 0.0 0.82	-- 50 0.48	-- 17 0.48	-- 0.82	-- 0.00	-- 0.00	-- 0.00	-- 0.00	-- 0.00	-- 0.00	-- 0.00	-- 0.00	-- 0.00	49 8
495820+00 02/08/66 5000 1100	8.50	10.0 88	-- 50 7.3	-- 345	-- 41 1.74	-- 0.0 1.21	-- 74 1.35	-- 48 1.35	-- 1.21	-- 0.03	-- 0.03	-- 0.03	-- 0.03	-- 0.03	-- 0.03	-- 0.03	-- 0.03	-- 0.03	84 24
495820+00 03/07/66 5000 1145	2.95	10.8 103	-- 56 7.5	-- 628	-- 71 3.04	-- 0.0 1.75	-- 98 2.76	-- 98 2.76	-- 1.75	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	139 52
495820+00 04/05/66 5000 1030	2.50	15.7 173	-- 69 8.4	-- 1040	-- 127 5.52	-- 0.0 2.69	-- 185 5.22	-- 185 5.22	-- 2.69	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	244 110
495820+00 05/02/66 5000 1000	1.48	16.8 191	-- 72 8.8	-- 1050	-- 27 113	-- 2.6 0.07	-- 93 1.73	-- 185 1.73	-- 1.73	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	246 99
495820+00 06/07/66 5000 0945	2.90	14.3 158	-- 69 8.7	-- 1030	-- 124 5.61	-- 6.0 2.95	-- 204 5.75	-- 204 5.75	-- 2.95	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	-- 0.02	254 97
495820+00 07/11/66 5000 1015	0.53	13.5 159	-- 75 8.7	-- 1250	-- 142 6.14	-- 0.0 3.00	-- 254 7.16	-- 254 7.16	-- 3.00	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	273 123
495820+00 08/09/66 5000 1000	0.80	15.2 191	-- 82 7.7	-- 1240	-- 144 6.44	-- 0.0 3.23	-- 259 7.30	-- 259 7.30	-- 3.23	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	-- 0.04	281 120
495820+00 09/14/66 5000 0830	14.8 158	-- 68	-- 8.7	-- 1230	-- 57 32	-- 141 6.13	-- 16 2.92	-- 96 2.00	-- 1.78 2.00	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	-- 0.40 0.40	702 662

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	ON SAT	TEMP F	PH LAB FLD	FC LAB FLD	MINERAL CONSTITUENTS IN MILLIEQUIVALENT PER LITER				MILLIGRAMS PER LITER PFCENT REACTANCE VALUE				MILLIGRAMS PER LITER F B S102				TOS SUM	TH NCH
						CA	MG	NA	K	CO3	HCO3	SO4	CL	N03	F	B	S102		
SUSAN RIVER AT SUSANVILLE (17b)																			
641600.00 10/06/65 0955	1.20 4.5	9.4 102	51 F 7.8	8.5 7.8	173	--	--	6.2 .27	--	2.0 .07	104 1.71	--	0.5 .01	--	--	0.2	--	--	78 0
641600.00 11/03/65 1020	1.25 4.8	11.1 103	43 F 7.6	8.4 7.6	170	--	--	5.8 .25	--	6.0 .20	97 1.59	--	0.5 .01	--	--	0.0	--	--	78 0
641600.00 12/14/65 1625	1.44 1.6	12.5 102	34 F 7.5	8.1 7.5	158	--	--	5.8 .25	--	0.0	98 1.61 1	--	0.9 .03	--	--	0.0	--	--	71 0
641600.00 01/19/66 1130	1.6 5000	12.8 105	34 F 7.7	8.0 7.7	138	--	--	5.3 .23	--	0.0	92 1.51 1	--	0.8 .02	--	--	0.0	--	--	68 0
641600.00 02/09/66 1045	1.5 5000	12.7 106	35 F 7.6	8.2 7.6	155	--	--	5.3 .26	--	0.0	94 1.54	--	1.2 .03	--	--	0.0	--	--	67 0
641600.00 03/24/66 1250	6.6 5000	11.3 104	43 F 7.6	8.2 7.6	122	--	--	4.9 .21	--	0.0	69 1.13	--	1.0 .03	--	--	0.0	--	--	53 0
641600.00 04/10/66 1550	11.7 5000	9.9 99	48 F 7.4	8.1 7.4	93	--	--	3.9 .17	--	0.0	54 .89	--	0.2 .01	--	--	0.0	--	--	40 0
641600.00 05/05/66 1230	8.7 5000	9.3 102	55 F 7.7	7.5 7.7	94	11 .55 54	3.3 .27 27	3.4 .17 17	0.9 .02 2	0.0	54 .89 94	2.0 .04 4	0.4 .01 1	0.7 .01 1	--	0.0	22	74 71 0	41 0
641600.00 06/09/66 0700	14.1 5000	9.9 101	58 F 7.3	7.9 7.3	58	--	--	2.1 .09	--	0.0	34 .56	--	0.2 .01	--	--	0.0	--	--	26 0
641600.00 07/05/66 1405	7.5 5000	8.2 112	75 F 8.0	7.9 8.0	141	--	--	5.0 .22	--	0.0	89 1.46 1	--	0.2 .01	--	--	0.0	--	--	63 0
641600.00 08/15/66 0910	1.0 5000	8.5 105	60 F 7.7	8.4 7.7	206	--	--	7.2 .31	--	2.0 .07	131 2.15 1	--	0.6 .02	0.6 .01	--	0.0	--	--	95 0
641600.00 09/07/66 1110	6.8 1.9 5000	9.5 113	66 F 8.1	8.3 8.1	197	19 .95 44	10 .82 38	7.1 .31 14	2.5 .06 3	2.0 .07	124 2.03 95	1.0 .02 1	0.6 .02	0.3 1	--	0.0	34	142 137 0	88 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.P. LAH SAMPLE	TEMP FLD	PH FLD	EC LAH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS					
					CA	%G	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂	SUM	TH NCH
G 71195.00 TRUCKEE RIVER AT PARAD (53)																		
G71195.00 10/04/65 5000 1000	9.5	--	7.9	78	8.1	24.3	3.0	1.5	0.0	43	0.0	3.0	1.7	--	.10	--	43	35
	104	53	7.5		4.0	20.02	1.7	.04		.71		.08	.03				283	0
					2	97	1			87		10	4					
G71195.00 11/15/65 5000 1400	10.3	--	8.0	98	9.5	0.0	5.1	1.4	0.0	40	2.0	0.4	0.6	--	.00	--	51	26
	106	47	7.5		4.7	.05	2.2	.04		.66	.04	.01	.01				39	0
					6.0	6	2.4	5		.42	6	1	1					
G71195.00 11/30/65 5000 1000	10.5	--	8.0	95	9.2	2.4	6.3	1.8	0.0	50	2.0	2.0	0.1	--	.00	--	59	33
	99	41	7.3		4.6	.20	2.7	.05		.42	.06	.06					49	0
					4.7	2.0	2.4	5		.47	6							
G71195.00 01/10/66 5000 1440	11.0	--	7.9	99	10	2.2	6.2	1.4	0.0	52	5.4	2.2	0.0	--	.00	--	62	34
	102	4	7.7		4.0	1.8	2.7	.04		.85	1.2	.06					53	0
					5.1	1.8	2.7	4		.43	1.2	6						
G71195.00 02/07/66 5000 1000	11.9	--	7.9	106	10	2.9	6.3	1.6	0.0	55	4.1	3.7	0.0	--	.00	--	78	37
	101	34	7.3		4.0	2.4	2.7	.04		.90	.04	.10					56	0
					4.4	2.3	2.7	4		.43	4							
G71195.00 03/21/66 5000 1315	10.9	--	--	106	11	3.0	4.7	1.0	--	--	2.0	2.0	0.0	--	.00	--	82	40
	107	44	7.9		4.5	.25	2.7	.03			.05	.06	.01				40	
G71195.00 04/04/66 5000 1145	11.1	--	--	10	10	1.4	4.1	1.1	--	--	2.3	2.1	0.0	--	.00	--	63	31
	112	46	7.7		4.0	1.2	1.4	.03			.05	.06					31	
G71195.00 05/09/66 5000 1240	9.3	--	7.0	62	6.9	1.7	2.7	0.9	0.0	32	2.3	0.6	0.6	--	.00	--	54	24
	99	50	7.5		4.4	1.4	1.2	.02		.52	.05	.02	.01				32	0
					5.5	2.3	1.4	3		.47	4	3	2					
G71195.00 06/04/66 5000 0900	9.1	--	7.5	77	8.6	2.0	3.4	1.4	0.0	42	0.2	2.4	0.3	--	.00	--	55	32
	101	53	7.5		4.3	.21	1.7	.04		.69	.07	.07					40	0
					5.1	2.5	2.0	5		.91	9							
G71195.00 07/18/66 5000 1215	8.2	--	7.7	94	9.4	2.0	5.4	1.4	0.0	51	2.4	2.0	0.4	--	.00	--	68	34
	104	64	7.1		4.7	.21	2.4	.05		.44	.06	.06	.01				49	0
					4.9	2.2	2.4	5		.47	6	6	1					
G71195.00 09/07/66 5000 1300	8.5	--	7.4	74	8.7	1.6	4.0	1.2	0.0	42	0.2	.04	0.0	--	.10	--	68	28
	102	59	7.7		4.4	.13	1.7	.03		.69	.01	.01					37	0
					5.7	1.7	2.2	4		.97	1	1						

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. SAT	TEMP	PH	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER				TDS SUM	TH NCH	
				EC FLD	LAH FLD	CA	MG	NA	K	CO3	HCO3	SO4	CL	F	H			SI02
G 7 1600.50 TRUCKEE RIVER NEAR TRUCKEE (52)																		
G71600.50 11/15/65 5000 1230	10.6 111	-- 47	6.0 7.3	105 7.3	--	--	5.9 .26	--	0.0	50 .82	--	1.3 .04	--	--	.00	--	--	38 0
G71600.50 01/10/66 5000 1200	10.5 101	-- 41	6.1 7.7	94 7.7	--	--	6.1 .27	--	0.0	50 .82	--	1.2 .03	--	--	.00	--	--	34 0
G71600.50 03/21/66 5000 1330	10.8 113	-- 47	6.0 7.3	113 7.3	--	--	6.1 .27	--	0.0	48 .79	--	4.4 .12	--	--	.00	--	--	40 1
G71600.50 05/04/66 5000 1140	9.8 103	-- 47	7.5 7.3	63 7.3	7.0 .35	1.0 .13	3.2 .14	0.8 .02	0.0	31 .51	4.0 .08	0.7 .02	0.4 .01	--	.00	13 48	48 46	24 0
G71600.50 07/18/66 5000 1145	8.2 105	-- 63	7.7 7.7	93 7.7	--	--	6.0 .26	--	0.0	53 .87	--	2.8 .08	--	--	.00	--	--	35 0
G71600.50 09/07/66 5000 1045	8.6 110	-- 63	7.4 7.9	110 7.9	9.7 .44	4.4 .36	6.4 .30	1.4 .04	0.0	60 .98	5.9 .12	2.8 .08	0.8 .01	--	.00	--	76 61	42 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. Q	DO SAT	TEMP	PH	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
					LAH FLD	EC FLD	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂	TDS	TH
					LAKE TAHOE AT TAHOE CITY (38)															
G71710.00 11/15/65 5000 1300	8.10	9.4 104	-- 50	8.0 7.5	91	--	--	--	5.4 .25	--	0.0	4.4 .79	--	1.0 .03	--	--	.00	--	--	32 0
G71710.00 01/10/66 5000 1315	7.8	10.2 101	-- 42	8.0 7.5	92	--	--	--	5.7 .25	--	0.0	5.0 .82	--	1.1 .03	--	--	.00	--	--	32 0
G71710.00 03/21/66 5000 1130	7.34	10.0 101	-- 43	8.0 7.5	95	--	--	--	6.4 .24	--	0.0	5.0 .82	--	1.6 .05	--	--	.00	--	--	32 0
G71710.00 05/09/66 5000 1055	7.82	9.4 104	-- 50	7.4 7.7	90	--	9.2 .46	2.2 1.8	6.1 .27	1.5 .04	0.0	5.0 .42	1.0 .02	1.5 .04	0.1 .5	--	.00	11	58 57	32 0
G71710.00 07/18/66 5000 1100	7.60	8.5 109	-- 61	7.8 7.7	92	--	--	--	6.3 .27	--	0.0	5.4 .89	--	1.3 .04	--	--	.00	--	--	37 0
G71710.00 09/07/66 5000 1130		8.1 106	-- 64	7.7 8.0	95	--	8.4 .42	4.4 .36	6.2 .27	1.3 .03	0.0	5.3 .87	3.0 .07	2.0 .06	1.1 .02	--	.00	--	62 53	39 0

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	G.M. LAT SAMPLE	DD SAT	TEMP	PH LAT FLD	EC LAT FLD	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
						CA	AG	NA	K	CO ₃	HCO ₃	SU ₄	CL	NO ₃	F	H	SI0 ₂	TOS SUM	TH NCH	
G 8 2300.00 CARSON RIVER, WEST FORK, AT WOODFORDS (115a)																				
G82300.00 11/16/65 0945		10.9 104	-- 40	7.9 7.3	74	--	--	3.4 .15	--	0.0	.40 .66	--	0.4 .01	--	--	.00	--	--	28 0	
G82300.00 01/11/66 0930	34	11.9 101	-- 33	7.7 7.3	73	--	--	3.4 .15	--	0.0	.39 .64	--	0.2 .01	--	--	.00	--	--	27 0	
G82300.00 03/22/66 1245	46	10.8 104	-- 41	7.4 7.3	70	--	--	3.4 .16	--	0.0	.39 .64	--	0.3 .01	--	--	.00	--	--	31 0	
G82300.00 05/10/66 0755	216	9.9 98	-- 43	7.4 7.3	46	6.0	1.0	1.7 .04	0.5 .01	0.0	.25 .41	1.0 .02	0.2 .01	0.3	--	.00	12	41 35	19 0	
G82300.00 07/19/66 1200	52	8.2 106	-- 64	7.9 7.5	64	--	--	2.4 .11	--	0.0	.36 .59	--	0.0	--	--	.00	--	--	29 0	
G82300.00 09/04/66 1215	16	9.0 110	-- 59	7.1 7.5	87	8.6	2.0	4.5 .21	1.6 .20	0.0	.54 .49	2.7 .05	0.4 .01	0.7 .01	--	.40	--	71 48	32 0	

TABLE D 2
MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT LONG	SUN	TEMP	P.H.	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TH
					EC	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SI02	TDS		
					CARSON RIVER, EAST FORK, NEAR MARKLEVILLE (115)															
G 8 3420.20																				
11.2					126	--	--	8.1	--	0.0	0.1	--	2.2	--	--	.00	--	--	45	
104		39		7.5				.34			1.00		.06						0	
12.3					154	--	--	8.4	--	0.0	.72	--	2.0	--	--	.20	--	--	58	
103		32		7.7				.34			1.14		.06						0	
10.8					140	--	--	9.0	--	0.0	.67	--	2.3	--	--	.20	--	--	50	
106		43		7.9				.34			1.10		.06						0	
10.0					61			3.4	0.9	0.0	.32	3.0	1.5	0.2	--	.00	14	52	22	
100		44		7.3		.33	.12	.17	.02		.52	.00	.01					46	0	
0940					57	19	27	3			.88	1.0	2							
8.1					40	--	--	5.2	--	0.0	.50	--	2.0	--	--	.00	--	--	34	
105		65		8.1				.44			.62		.06						0	
0900/66					154			6.4	2.0	0.0	.85	5.1	2.2	1.0	--	.50	--	109	65	
1130					44			.24	.3		.88	/	.4					85	0	

TABLE D 2

MINERAL ANALYSIS OF SURFACE WATER

STATION NUMBER DATE TIME	LAT. LONG.	SAMPLING	DEPTH M	TEMP °C	PH	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER					MILLIGRAMS PER LITER					TOS SUM	TH NCH
						Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	F	PI		
G 9 2400.00 WALKER RIVER, WEST, NEAR COLEVILLE (116)																	
692400.00 11/15/65 1145	11.0 107	-- 39	7.1 7.3	111	--	7.0	--	0.0	60	--	0.7	--	0.0	--	--	40	0
692400.00 01/11/66 1210	12.2 108	-- 33	7.1 7.3	110	--	6.0	--	0.0	50	--	0.8	0.02	0.0	--	--	40	0
216 03/22/66 1115	11.5 112	-- 39	6.1 7.5	105	--	5.0	--	0.0	57	--	0.8	0.02	0.0	--	--	40	0
754 05/10/66 0945	10.0 102	-- 42	7.5 7.3	102	0.7	0.5	0.0	23	1.0	0.2	0.1	2	0.0	0.0	0.5	33	17
193 092400.00 07/19/66 0945	8.7 109	-- 58	7.2 7.6	79	--	4.7	--	0.0	44	--	1.0	0.3	0.0	--	--	35	0
134 09/04/66 1015	10.0 115	-- 54	6.2 8.1	154	1.0	3.0	0.9	0.0	40	4.3	1.6	0.4	0.0	0.0	--	97	60

TABLE D 2

ANALYSIS OF SURFACE WATER																	
STATION NUMBER DATE TIME		LAT S	LONG W	TEMP	PH	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				MILLIGRAMS PER LITER PERCENT REACTION VALUE				MILLIGRAMS PER LITER			
						FC FLO	CA	MG	NA	CU	MG	CL	MG	F	MG	SUM	TH MG
G 9 3200.00 WALKER RIVER, EAST, NEAR BRIDGEPORT (116a)																	
693200.00 11/16/65 5000 1245	9.5	--	--	1.0	--	--	--	0.0	105	--	0.7	--	--	.00	--	75	
	97	43	7.9						1.72	.02						0	
693200.00 01/11/66 5000 1310	9.7	--	--	1.4	--	--	--	0.0	122	--	2.0	--	--	.10	--	82	
	143	96	41	7.9					2.00	.06						0	
693200.00 03/22/66 5000 1000	10.2	--	--	1.7	--	--	--	0.0	110	--	2.7	--	--	.10	--	70	
	71	102	42	7.8					1.40	.04						0	
693200.00 05/10/66 5000 1100	8.1	--	--	1.7	210	24	3.0	14	2.4	0.0	115	11	1.9	0.5	14	75	
	256	98	56	7.9	1.20	.30	.61	.07		1.49	.25	.05	.01		128	0	
					55	14	24	3		87	11	2					
693200.00 07/19/66 5000 0845	7.4	--	--	2.0	215	--	--	13	--	0.0	123	--	2.2	--	.10	87	
	248	100	65	8.7				.57		2.02	.06					0	
693200.00 09/08/66 5000 0915	7.5	--	--	2.0	251	24	3.0	15	4.3	0.0	139	11	1.0	.80	--	93	
	201	99	63	8.3	1.45	.41	.65	.11		2.28	.23	.03	.06		172	0	
					55	16	25	4		88	4	1			138	0	

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 1965-66	Coliform MPN/ml	Turbidity		MBAS n mg/l	AS in mg/l	PO ₄ in mg/l	Other Constituents
				PPM	UNITS				
American River, Middle Fork near Auburn (22b)	A7 3100.00	11/2			1				
		1/5			5				
		3/24			1	0.0	0.00	0.00	
		5/12			1				
		7/5			1				
		7/19			1	0.0	0.01	0.00	
American River at Nimbus (22a)	A7 1110.00	10/4	6.2	6.2	1				
		11/2	23	23	1				
		11/30	62	62	1				
		1/5	50	62	4				
		2/7	620	620	3				
		3/6	230	230	1				
		4/6	23	23	1				
		5/3	29	620	1	0.0	0.00	0.00	
		6/10	62	23	1				
		7/15	62	13	2				
		8/6	62	6.2	2				
American River at Sacramento (22)	A0 7140.00	9/16	13	62	4	0.0	0.00	0.01	
		10/8	2.3	23	1				
		11/2	23	2.3	1				
		11/30	13	130	4				
		1/5	6.2	62	4				
		2/7	16	230	3				
		3/8	62	62	3				
		4/8	62	23	1				
		5/3	23	23	1	0.0	0.00	0.58	
		6/10	21	2.3	1				
		7/15	23	2.3	2				
American River, South Fork near Lotus (22c)	A7 4150.00	8/8	62	23	3				
		9/16	2.3	13	4	0.0	0.00	0.50	
		11/2			25				
		1/5			5				
		3/24			2				
		5/12			20	0.0	0.00	0.00	
		7/5			2				
		9/19			1	0.0	0.00	0.00	
Antelope Creek near Mouth (88c)	A0 4520.00	10/6			5				
		11/3			4				
		12/13			4				
		1/17			2				
		2/10			1				
		3/2			1				
		4/12			4				
		5/2			4	0.0	0.00	0.46	
		6/2			4				
Antelope Creek near Red Bluff (88e)	A4 5110.50	10/6			1				
		11/3			0				
		12/13			1				
		1/17			1				
		2/9			1				
		3/2			1				
		4/12			1				
		5/2			1	0.0	0.00	0.04	
		6/2			1				
		7/6			1				
Battle Creek near Cottonwood (88h)	A4 7110.00	9/1			1	0.0	0.00	0.02	
		10/7			1				
		11/4			1				
		12/13			3				
		1/5			10				
		2/4			5				
		3/8			2				
		4/12			5				
		5/2			1	0.0	0.00	0.12	
		6/2			1				
Bear River near Wheatland (78)	A0 6550.00	7/6			1				
		9/1			2	0.0	0.00	0.18	
		10/8	0.23	0.62	1				
		11/5			1				
		12/23	23	62	3				
		1/7			30				
		2/11	6.2	6.2	15				
		3/10	2.3	6.2	5				
		4/7	2.3	1.3	2				
		5/5	130	50	1				
		6/9	6.2	23	2				
Big Chico Creek @ Chico (85a)	A0 4250.00	7/14	23	62	1				
		8/11	2.3	0.62	1				
		9/15	62	6.2	3				
		10/6			1				
		11/3			0				
		12/1			1				
		1/5			10				
		2/8			1				
		3/8			1				
		4/6			1				
		5/6			1	0.0	0.00	0.02	
		6/9			1				

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 6-10-66	Coliform MPN/ml		Turbidity		MBAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
					PPM	UNITS				
Big Chico Creek near Chico (51)	A- 2110 (51)	10/5			1					
		11/5			0					
		12/1			1					
		1/6			1					
		2/8			1					
		3/5			1					
		4/5			1					
		5/5			1					
		6/9	2.1	6.2	1	0.0	0.00	0.03		
		7/13	23	62	1					
		8/10	0.62	2.3	1					
		9/14	21	62	1	0.0	0.00	0.04		
Butte Creek near Chico (84)	A- 1110 (84)	10/5			1					
		11/3			0					
		12/1			2					
		1/5			50					
		2/8			1					
		3/8			1					
		4/5			1					
		5/4			1	0.0	0.00	0.00		
		6/9	2.5	2.3	1					
		7/13	6.2	23	1					
		8/10	0.62	13	1					
		9/14	2.3	5.0	1	0.0	0.00	0.08		
Cache Creek near Lapav (80)	AS 1120 (80)	10/5			3					
		11/19			175					
		12/6			2					
		1/13			90					
		2/14			10					
		3/24			4					
		4/7			1					
		5/13			4	0.0	0.00	0.06		
		6/3			2					
		7/15			7					
		8/9			7					
		9/20			3	0.0	0.00	0.10		
Cache Creek near Lower Lake (42)	AS 1350 (42)	10/5	2.3	6.2	5					
		11/3	62	62	10					
		12/4	13	230	5					
		1/7	30	620	70					
		2/8	6.2	62	25					
		3/4	2.3	23	10					
		4/7			5	0.0	0.00	0.33		
		5/4			5					
		6/7			10					
		7/13	2.3	6.2	5					
		9/14	62	62	20	0.0	0.00	0.36		
Cache Creek, North Fork near Lower Lake (79)	A4 2050 (79)	10/5			1					
		11/3			0					
		12/9	6.2	23	1					
		1/7			250					
		2/8			4					
		3/4			2					
		4/7			1					
		5/4			0	0.0	0.00	0.05		
		6/7			1					
		7/13			1					
		9/14			3	0.0	0.00	0.17		
Calaveras River below New Hogan Dam (16c)	B2 2300 (16c)	10/5			5					
		11/1	9.5	2.3	4					
		12/2	23	23	3					
		1/3	23	62	4					
		2/7	5.0	0.62	4					
		3/7	21	2.3	2					
		4/4	13	23	6					
		5/3	0.23	23	1	0.0	0.00	0.02		
		6/6	2.3	2.3	1					
		8/9	2.3	0.23	1					
		9/12	23	23	1					
Calaveras River above New Hogan Dam (16d)	B2 2695 (16d)	10/5			1					
		11/1	23	2.1	0					
		12/2	6.2	23	1					
		1/3	23	230	1					
		2/7	62	130	10					
		3/7	6.2	0.23	1					
		4/4	62	13	1					
		5/3	6.2	6.2	1					
		6/6	6.2	2.3	3					
		7/11	2.3	2.3	1					
Calaveras River at Jenny Lind (15a)	B2 2490 (15a)	10/13			3					
		11/9			4					
		12/6			1					
		1/6			4					
		2/1			5					
		3/1			1					
		4/11			1					
		5/4			1	0.0	0.00	0.01		
		6/3			1	ample Broken				
		7/5			1					
		8/9			2					
		9/1			1	0.0	0.00	0.01		

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 6-66	Coliform MPN/ml	Turbidity		MBAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
				PPM	UNITS				
Calaveras River at Stockton (101)	BU 2520.00	10/15	Dry						
		11/3	Dry						
		12/6			4				
		1/6			60				
		2/1			40				
		3/1			5				
		4/13			40				
		5/12			3	0.0	0.00	0.11	
		6/1			55				
		7/12			10				
		8/12							
		9/1	230 Dry	62	5	0.0	0.00	0.05	
Clear Creek near Iso (12d)	A3 6130.00	10/7			3				
		11/4			3				
		12/13			4				
		1/5			5				
		2/4			10				
		3/2			2				
		4/13			1	0.0	0.00	0.00	
		5/3			1				
		6/3			1				
		7/7			1				
		9/2			1	0.0	0.00	0.00	
Clear Lake at Lakeport (41)	AN 1720.00	10/5	1.3	23	30				
		11/3	62	6.2	40				
		12/9	5	6.2	40				
		1/7	620	2400	70				
		2/8	6.2	23	45				
		3/4	23	62	50				
		4/8	2.3	2.3	25				
		5/6	23	23	10	0.0	0.00	0.15	
		6/10	2.3	6.2	5				
		7/21	.5	1.3	5				
		9/14	6.2	23	20	0.0	0.01	0.88	
Colusa Basin Drain near Colusa (87)	AO 2976.00	10/6			30				
		11/3			35				
		12/1			30				
		1/5			525				
		2/8			210				
		3/9			25				
		4/7			65				
		5/5			45	0.0	0.00	0.30	
		6/8			40				
		7/13			25				
		8/11			25				
		9/16			35	0.0	0.00	0.21	
Cottonwood Creek near Cottonwood (12b)	AO 3520.00	10/7			1				
		11/4			1				
		12/11			4				
		1/17			25				
		2/10			15				
		3/2			5				
		4/13			25				
		5/2			2	0.0	0.00	0.00	
		6/2			1				
		7/6			1				
		8/12			3				
		9/1			1	0.0	0.00	0.07	
Cottonwood Creek below N Fork Cottonwood Creek (11a)	AO 3540.00	10/7			1				
		11/4			0				
		12/13			5				
		1/5			180				
		2/4			105				
		3/2			10				
		4/13			5				
		5/3			1	0.0	0.00	0.03	
		6/3			1				
		7/7			1				
		9/2			1	0.0	0.00	0.03	
Cottonwood Creek, South Fork above Cottonwood Creek (11b)	AO 3595.00	10/7			1				
		11/4			1				
		12/13			1				
		1/17			25				
		2/10			4				
		3/2			2				
		4/13			40				
		5/3			1	0.0	0.00	0.00	
		6/2			1				
		7/6			1				
Consumnes River at McConnel (94a)	BO 1125.00	11/1	Dry						
		1/6	230		5				
		3/8	2.1	2.3	3				
		5/4	620	6.2	1	0.0	0.00	0.01	
		7/12	DRY						
		9/1	Dry						
Consumnes River at Michigan Bar (94)	BI 1150.00	11/2			1				
		1/5			4				
		3/4			1	0.0	0.00	0.00	
		5/12			1				
		7/5			1				
		9/16			1	0.0	0.00	0.01	

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 1965-1966	Coliform		Turbidity		MBAS n mg/l	AS r mg/l	PO ₄ n mg/l	Other Constituents
			MPN/ml		PPM	UNITS				
Cow Creek near Millville (98a)	A4 8110.00	11/7			2					
		11/4			1					
		12/13			1					
		1/17			3					
		2/4			45					
		3/7			4					
		4/13			10					
		5/2			1		0.00	0.00	0.04	
		6/2			5					
		7/6			5					
		9/1			2		0.00	0.00	0.30	
Delta Cross Channel near Walnut Grove (98)	B9 1700.00	10/6	230	6.2	2					
		11/1	62	6.2	3					
		11/29	130	500	5					
		1/3	62	230	10					
		2/4	520	620	90					
		3/8	62	230	4					
		4/6	1300	620	40					
		7/3	620	230	5	0.0	0.00	0.26		
		8/8	23	62	4					
		7/12	6.2	62	10					
		8/12	230	620	7					
		8/15	1300	2400	15	0.0	0.00	0.47		
Elder Creek @ Geher (91a)	A0 3320.00	12/13			4					
		1/17			30					
		2/10			15					
		3/2			3					
		4/12			20					
		5/2			1	0.0	0.00	0.05		
		6/2			1					
Elder Creek near Palakenta (11a)	A3 3140.00	10/7			1					
		11/2			0					
		12/2			45					
		1/6			210					
		2/9			15					
		3/8			4					
		4/6			25					
		5/4			1	0.0	0.00	0.07		
		6/8			1					
		9/13			1	0.0	0.00	0.01		
Feather River, Middle Fork near Merrimac (19b)	A5 5100.00	10/1			1					
		11/8			0					
		12/7			2					
		1/10			1					
		3/3			1					
		4/14			2					
		5/11			5	0.0	0.00	0.01		
		6/2			1					
		7/7			1					
		8/4			1					
		9/2			6	0.0	0.00	0.01		
Feather River at Nicolaus (20)	A0 5103.00	10/8	2.3	1.3	5					
		11/5			4					
		12/3	23	50	5					
		1/7			40					
		2/11	620	620	5					
		3/10	62	23	4					
		4/7	23	6.2	5					
		5/5	230	23	4	0.0	0.00	0.03		
		6/9	6.2	2.3	4					
		7/14	13	6.2	5					
		8/11	2.3	0.62	4					
		9/15	62	23	5	0.0	0.00	0.03		
Feather River, North Fork at Big Bar (19a)	A5 3140.00	10/15			1					
		11/17			4					
		12/3			2					
		1/12			1					
		2/4			2					
		3/23			2					
		4/7			4					
		5/11			1	0.0	0.00	0.00		
		6/9			1					
		7/20			2					
		8/11			1					
		9/15			1	0.0	0.00	0.00		
Feather River near Oroville (19)	A5 1140.00	10/8	2.3	< 0.0%	1					
		11/5	2.3	23	2					
		12/3	6.2	6.2	5					
		1/7			5					
		2/11	2.3	6.2	4					
		3/10	1.3	6.2	5					
		4/7	23	6.2	1					
		5/5	2.3	23	1	0.0	0.00	0.01		
		6/9	6.2	1.3	4					
		7/14	1.3	2.3	4					
		8/11	0.62	2.3	2					
		9/15	23	23	2	0.0	0.00	0.00		

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 6/5-66	Coliform MPN/ml	Turbidity		MBAS in mg/l	AS in mg/l	PO ₄ in mg/l	Other Constituents
				PPM	UNITS				
Feather River below Shanghai Bend (20a)	A0 5120.00	10/8			4				
		11/5			4				
		12/3			5				
		1/7			10				
		2/11			10				
		3/10			4				
		4/7			5				
		5/5			10	0.0	0.00	0.02	
		6/9			4				
		7/14			4				
		8/11			4				
		9/15			5	0.0	0.00	0.06	
Feather River, South Fork below Ponderosa Dam (19c)	A0 6080.00	10/9			4				
		11/5			4				
		12/3			5				
		1/7			10				
		2/11			10				
		3/10			4				
		4/7			5				
		5/5			10	0.0	0.00	0.02	
		6/9			4				
		7/14			4				
		8/11			4				
		9/15			5	0.0	0.00	0.06	
Feather River, West Branch near Yankee Hill (19d)	A5 2100.00	10/15			1				
		11/16			2				
		12/3			2				
		1/12			1				
		2/4			3				
		3/10			4				
		4/7			2				
		5/11			1	0.0	0.00	0.00	
		6/9			1				
		7/20			1				
		8/11			1				
		9/15			4	0.0	0.00	0.07	
Grant Line Canal at Tracy Road Bridge (103a)	B9 5300.00	10/7	0.06	0.23	5				
		11/3	6.2	6.2	5				
		12/2	620	230	20				
		1/4	620	230	55				
		2/8	62	62	15				
		3/7	6.2	2.3	10				
		4/5	62	230	35				
		5/2	6.2	5.0	20	0.0	0.00	0.50	
		6/7	2400	230	20				
		7/11	12	9.2	20				
		8/9	62	21	20				
		9/14	230	62	20	0.0	0.00	0.62	
Indian Creek near Crescent Mills ** (17d)	A5 4320.00	11/17	13	14	15				
		1/12	8	9	5				
		3/23	7	7	25				
		5/11			10	0.0	0.01	0.05	
		7/20	65	75	4				
		9/13			1				
Indian Slough near Brentwood (107)	B9 5279.80	10/14			25				
		11/19			40				
		12/6			15				
		1/5			5				
		2/8			25				
		3/9			5				
		4/13			35				
		5/13			50	0.0	0.00	0.32	
		6/3			40				
		7/8			45				
		8/12			45				
		9/13			25	0.0	0.00	0.28	
Italian Slough near Mouth (106)	B9 5279.50	10/7			15				
		11/4			17				
		12/1			15				
		1/5			30				
		2/2			20				
		3/2			27				
		4/6			25				
		5/4			45	0.0	0.00	0.30	
		6/1			70				
		7/6			60				
		8/3			35				
		9/6			30				
Lindsey Slough near Rio Vista (110)	B9 1260.00	10/6	<0.045	<0.045	50				
		11/4	230	23	30				
		12/10	620	620	15				
		1/14	230	230	135				
		2/9	62	130	105				
		3/3	23	62	80				
		4/14	6.2		60				
		5/20	6.2	13	65	0.0	0.00	0.29	
		6/17	5	23	75				
		7/15	6.2	23	90				
		9/6	23	62	60	0.0	0.00	0.40	
Little Potato Slough at Terminus (99)	B9 4120.10	11/9			10				
		1/3			40				
		3/1			15	0.0	0.00	0.17	
		5/12			10				
		7/8			30				
		9/12			15	0.0	0.00	0.96	

** Coliform by Millipore Filter Method

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date (yy-mm-dd)	Coliform MPN/ml	Turbidity		MBAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
				PPM	UNITS				
McCloud River above Shasta Lake (18)	A2 2140.00	10/4		1					
		11/1		1					
		11/29		5					
		1/3		1					
		2/7		1					
		3/7		1					
		4/8		1					
		5/3		2					
		6/7		1		0.0	0.00	0.06	
		7/7		1					
		8/12		1		0.0	0.00	0.09	
		9/13		1					
Mill Creek near Mouth (88)	A4 4110.00	10/6		1					
		11/3		1					
		12/13		3					
		1/17		3					
		2/10		1					
		3/2		1					
		4/12		5					
		5/2		5		0.0	0.00	0.06	
		6/2		1					
		7/6		1					
		8/1		1					
		9/1		2		0.0	0.02	0.11	
Nokelume River below Cananche Dam (23a)	B2 1170.00	11/9		1					
		1/6		2					
		3/1		2					
		5/4		1		0.0	0.00	0.00	
		7/5		1					
		9/1		1		0.0	0.00	0.03	
Nokelume River at Woodbridge (23)	B9 4300.00	11/1	6.2	2					
		1/6	5.0	1.3					
		3/8	2.3	0.62					
		5/3	6.2	6.2		0.0	0.00	0.02	
		7/12	13	23					
		9/16	5.0	230		0.0	0.00	0.03	
Old River at Clifton Court Ferry (104)	B9 5340.00	10/7	0.23	0.06					
		11/3	23	6.2					
		12/2	230	620					
		1/4	62	620					
		2/8	50	50					
		3/7	23	6.2					
		4/5	6.2	23					
		5/2	6.2	13		0.0	0.00	0.32	
		6/7	62	13					
		7/11	23	6.2					
		8/9	6.2	23					
		9/14	23	23		0.0	0.00	0.30	
Old River at Manzanillo Island (112)	B9 5110.20	10/13		10					
		11/9		10					
		12/6		15					
		1/13		25					
		2/1		15					
		3/1		40					
		4/11		25					
		5/12		15		0.0	0.00	0.22	
		6/1		25					
		7/8		35					
		8/2		35					
		9/1		20		0.0	0.00	0.29	
Old River at Orwood Bridge (108)	B9 5320.20	10/14		25					
		11/9		15					
		12/6		35					
		1/6		40					
		2/9		40					
		3/9		50					
		4/13		30					
		5/13		35		0.0	0.00	0.22	
		6/3		25					
		7/8		45					
		8/12		40		0.0	0.00	0.27	
		9/13		30					
Old River near Tracy (103)	B9 5380.80	10/7	0.62	0.06					
		11/3	210	62					
		12/2	620	230					
		1/4	620	620					
		2/8	620	230					
		3/7	7000	274,000					
		4/5	130	23					
		5/2	13	62					
		6/7	230	130		0.0	0.00	0.68	
		7/11	62	230					
		8/9	37	62					
		9/14	23	21		0.0	0.00	0.73	
Paynes Creek near Red Bluff (88g)	A0 4620.00	10/6		2					
		11/3		3					
		12/15		3					
		1/17		2					
		2/9		2					
		3/2		2					
		4/12		1					
		5/2		1		0.0	0.00	0.25	
		6/2		5					
		7/6		1					
		9/7		1		0.0	0.00	0.42	

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date	Coliform MPN/ml		Turbidity		MRAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
					PPM	UNITS				
Fitt River near Canby (17a)	A1 1680.00	10/5			30					
		11/2			10					
		12/14			10					
		1/18			30					
		2/8			40					
		3/23			50					
		4/19			35					
		5/4			35					
		6/9			20		0.0	0.00	0.10	
		7/5	6.2	6.2	30					
		8/15	23	7,000	10					
		9/8	2.3	13	20		0.0	0.01	0.17	
Fitt River near Montgomery Creek (17)	A1 1020.00	10/7			1					
		11/6			1					
		12/14			3					
		1/18			4					
		2/4			5					
		4/19			5					
		5/4			1		0.0	0.00	0.09	
		6/9			1					
		7/5			1					
		8/4			1					
		9/8			1		0.0	0.00	0.16	
Fitt River, South Fork near Likely (18a)	A1 4400.00	10/6			2					
		11/3			1					
		12/14			2					
		1/19			3					
		2/9			2					
		3/24			35					
		4/19			5					
		5/4			10		0.0	0.00	0.30	
		6/9			25					
		7/5			35					
		8/15			35					
		9/7			20		0.0	0.00	0.32	
Putah Creek near Winters (91)	A9 1250.00	10/6	<0.045	<0.045	1					
		11/4	2.3	62	3					
		12/9	21	62	2					
		1/14	23	23	15					
		2/9	1.3	2.3	5					
		3/3	2.3	6.2	1					
		4/14	6.2	23	1					
		5/20	2.3	6.2	1		0.0	0.00	0.02	
		6/17	23	62	1					
		7/15	0.62	2.30	1					
		9/6	6.20	2.30	1		0.0	0.00	0.03	
Red Bank Creek near Red Bluff (88d)	A0 3460.00	12/2			1					
		1/6			150					
		2/9			15					
		3/8			1					
		4/6			1		0.0	0.00	0.10	
		5/4			1					
Rock Slough near Knightsen (109)	B9 5220.00	10/6	<0.045	<0.045	10					
		11/4	62	6.2	15					
		12/1	21	62	15					
		1/3	23	62	5					
		2/8	6.2	6.2	30					
		3/9	6.2	6.2	40					
		4/5	230	620	25					
		5/2	23	2.3	35		0.0	0.00	0.22	
		6/8	23	2.3	30					
		7/13	2.3	6.2	35					
		8/9	62	13	30					
		9/14	23	23	25		0.0	0.00	0.25	
Sacramento River at Bend (12c)	A0 2785.00	10/6	230	230	2					
		11/1	620	62	1					
		11/29	130	62	5					
		1/3	6.2	62	4					
		2/7	62	23	25					
		3/8	62	130	3					
		4/5	620	24,000	5					
		5/3	62	230	1		0.0	0.00	0.08	
		6/7	130	7,000	1					
		7/11	620	620	1					
		8/9	23	620	1					
		9/13	0.6	2.3	2		0.0	0.00	0.07	
Sacramento River at Butte City (87a)	A0 2500.00	10/6			2					
		11/3			2					
		12/1			5					
		1/5			525					
		2/8			65					
		3/9			5					
		4/7			35					
		5/5			2		0.0	0.00	0.05	
		6/8			2					
		7/13			4					
		8/11	12	23	4					
		9/14			4		0.0	0.00	0.05	
Sacramento River above Colusa (14b)	A0 2430.00	10/6			10					
		11/3			2					
		12/1			5					
		1/5			10					
		2/8			65					
		3/9			10					
		4/7			21		0.0	0.00	0.12	
		5/5			15					

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date	Coliform MPN/ml	Turbidity		MRAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
				PPM	UNITS				
Sacramento River above Colusa (14) Continued.	A0 2430.02	6/4			10				
		7/11			5				
		8/11			5				
		9/14			10	0.0	0.00	0.10	
Sacramento River at Colusa (13)	A0 2420.00	10/6			10				
		11/3			3				
		12/1			5			0.11	
		1/5	23	230	15				
		2/8	230	620	90				
		3/9	23	23	10				
		4/7	23	62	35				
		4/5	6.2	6.2	4	0.0	0.00	0.06	
		6/9	2.3	23	4				
		7/13	6.2	62	5				
		8/11	6.2	23	4				
		9/14	2.3	6.2	3	0.0	0.00	0.06	
Sacramento River at Delta (11)	A2 1300.00	10/4			1				
		11/1			0				
		11/29			2				
		1/3			4				
		2/7			2				
		3/8			19				
		4/5			5				
		4/3	0.00	2.30	5	0.0	0.00	0.04	
		6/7	23	130	1				
		7/11	0.23	0.62	1				
		8/8	0.62	2.3	1				
		9/13	0	0.6	1	0.0	0.00	0.09	
Sacramento River at Freeport (15)	B9 1849.90		<u>L.B.</u>	<u>R.B.</u>					
		10/6	<0.045	<0.045	5				
			0.06	<0.045					
		11/1	230	5.0	2				
			5.0	2.3					
		11/29	130	620	5				
			290	620					
		1/3	2400	2400	10				
			300	500					
		2/9	230	620	90				
			130	230					
		3/5	620	620	4				
			230	230					
		4/6	230	24,000	25			*0.32	
			210	62					
		5/3	7000	620	4	0.0	0.00	*0.45	
			620	2400					
		6/8	230	230	10				
			23	23					
		7/12	230	620	10				
			23	23					
		8/12	230	230	4				
			62	230					
		9/12	620	62	15	0.0	0.01	0.38	
			13	6.2					
Sacramento River at Keck (12)	A2 1010.00	10/6	23	24,000	2				
		11/1	62	23	1				
		11/29	1.3	6.2	5				
		1/3	0.06	0.45	3				
		2/7	0.6	23	4				
		3/8	0.2	1.4	2				
		4/5	0.62	0.62	1				
		5/3	0.06	0.01	1	0.0	0.00	0.12	
		6/7	23	24,000	1				
		7/11	130	62	1				
		8/11	23	62	1				
		9/13	0	620	1	0.0	0.00	0.05	
Sacramento River near Hamilton City (13)	A0 2630.00	10/6			5				
		11/3			1				
		12/1	24000	24000	5				
		1/5	230	7000	525				
		2/8	620	620	25				
		3/8	230	230	10				
		4/6	62	130	35				
		5/4	6.2	62	4	0.0	0.00	0.06	
		6/9	2.3	23	3				
		7/11	23	45	2				
		8/10	62	62	1				
		9/14	62	62	2	0.0	0.00	0.07	
			<u>L.B.</u>	<u>R.B.</u>					
Sacramento River at Rio Vista (16)	B9 1210.00	10/6			10				
			<u>L.B.</u>	<u>R.B.</u>					
		11/1	62	<0.045	10				
			23	50					
		11/29	230	230	15				
			230	62					
		1/3	230	230	50				
			620	93					
		2/9	620	2400	105				
			620	230					
		3/8	230	62	15				
			62	23					
		4/6	230	230	40				
			62	62					
		5/3	23	230	15	0.0	0.00	0.25	
			23	230					
		6/8	23	6.2	25				
			21	21					
		7/12	2.3	2.3	40				
			2.3	6.2					
		8/12	62	23	25				
			6.2	23					

* Total phosphorus

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date 65-66	Caliform MPN/ml		Turbidity		MBAS in mg/l	AS in mg/l	PO ₄ in mg/l	Other Constituents
					PPM	UNITS				
Sacramento River at Rio Vista (16) continued.	B9 1210.00	9/12	23	29		30	0.0	0.00	0.42	
			62	23						
Sacramento Slough near Knight Landing (14a)	A0 2925.00	10/6				30				
		11/3				10				
		4/7				40				
		5/5				40	0.0	0.01	0.39	
		6/8				30				
		7/13				25				
		8/11				25				
		9/14				90	0.0	0.01	0.8	
San Joaquin River at Antioch (28)	B9 5020.00	10/6	0.23	0.23		10				
		11/1	230	62		15				
		12/1	23	230		35				
		1/3	230	62		5				
		2/9	23	62		30				
		3/8	13	23		25				
		4/5	62	5.0		25				
		5/4	230	2400		25	0.0	0.00	0.23	
		6/8	500	23		30				
		7/12	23	6.2		55				
		9/14	620	230		50	0.0	0.00	0.43	
San Joaquin River at Garwood Bridge (101)	B9 5709.80	10/7	0.06	0.06		15				
		11/3	62	62		5				
		12/2	230	230		20				
		1/4	230	130		55				
		2/8	230	620		30				
		3/7	6.2	2.3		10				
		4/5	6.2	23		35				
		5/2	6.2	6.2		20	0.0	0.01	1.5	
		6/7	23	5.0		15				
		7/11	62	23		25				
		8/9	62	62		20				
		9/14	2400	620		20	0.1	0.00	2.9	
San Joaquin River at Mossdale Bridge (102)	B9 5820.00	10/7	0.60	0.23		10				
		11/3	130	23		5				
		12/2	2400	230		45				
		1/4	620	130		50				
		2/8	2400	130		40				
		3/7	13	23		10				
		4/5	230	62		35				
		5/2	62	23		25	0.0	0.00	0.5	
		6/7	6.2	23		15				
		7/11	230	23		35				
		8/9	62	20		30				
		9/14	23	620		15	0.0	0.00	0.81	
Stockton Ship Channel on Rindge Island (100)	B9 5619.80	10/7	0.23	0.60		10				
		11/3	23	500		5				
		12/2	62	62		30				
		1/4	62	230		40				
		2/8	62	330		25				
		3/7	23	2.3		10				
		4/5	6.2	13		20				
		5/2	62	12		20	0.0	0.00	0.36	
		6/7	6.2	6.2		25				
		7/11	6.2	5.0		30				
		8/9	2.3	6.2		50				
		9/16	1.3	620		35	0.0	0.00	0.37	
Stony Creek near Pruto (13f)	A3 1250.00	10/1			30	83				0.06
		11/1			30	80				0.08
		12/1			3	3				0.09
		1/3			5	5				0.09
		2/1			250	370				
		3/1			50	90				0.14
		4/1			525	900				0.14
		5/2			65	100	0.0	0.00	0.08	
		6/1			5	5				
		7/1			50	106				0.12
		8/16			10	10				
		9/1			90	90	0.0	0.00	0.08	
Stony Creek below Black Butte Dam (13c)	A3 1110.00	10/7			15	50				0.09
		11/4			15	42				0.11
		1/6			900	900				0.24
		2/9			75	80				
		3/8			40	40				0.13
		4/6			25	35				0.08
		5/4			35	45	0.0	0.00	0.07	
		6/8			40	60				
		7/13			35	70				0.09
		8/10			10	23				
		9/13			55	70	0.0	0.01	0.11	
Susan River at Susanville (17b)	G4 1600.00	10/6			3	3				
		11/3			2	2				
		12/14			2	2				
		1/19			2	2				
		2/9			1	1				
		3/24			4	4				
		4/19			1	1				
		5/5			3	3	0.0	0.00	0.02	
		6/9			1	1				
		7/5			1	1				
		8/15			1	1				
		9/7			1	1	0.0	0.00	0.07	

TABLE D-4
MISCELLANEOUS CONSTITUENTS IN SURFACE WATER
Northeastern California

Station	Station Number	Date (month)	Coliform		Turbidity		MBAS n mg/l	AS n mg/l	PO ₄ n mg/l	Other Constituents
			MPN/ml		PPM	UNITS				
Thomson Creek near Mouth (9-1)	A0 3200.00	12/13 1/17 2/10 3/2 4/12 5/2 6/2 7/6			10 90 35 90 325 90 5 1		0.00 0.00	0.00	0.07	
Thomson Creek at Parkenta (134)	A3 2120.00	10/7 11/4 12/2 1/6 2/9 3/5 4/6 5/4 6/8 7/13 8/10 9/13			1 1 15 1300 50 200 250 50 1 1 1 1	0 0 0 70 275 300 85 0 1 3 1	0.00 0.03 0.09 0.13 0.11 0.13 0.12 0.11 0.01			
Yuba River at Marysville (21)	A0 6120.00	11/5 1/7 3/10 5/5 7/19 9/1	1.3 2.3 1.3 2.3 6.2 23	0.23	0 4 3 1 4 2	0.00 0.00 0.00 0.00 0.01	0.00	0.01 0.03		
Yuba River near Smartville (21a)	A6 1100.00	11/5 1/7 3/3 5/5 7/19 9/2			1 4 1 1 1 1	0.00 0.00 0.00 0.00 0.00	0.00	0.01		
LAHONTAN REGION (No. 6)										
Carson River, East Fork near Markleville (111)	G3 3420.20	11/16 1/11 3/22 5/10 7/19 9/6	4.6 0.07 0.091 0.43 4.6 0.64	2.4 0.15 0.036 0.23 0.93 2.4	1 1 4 5 2 8	0.00 0.00 0.00 0.00 0.00	0.00	0.05 0.00		
Carson River, West Fork at Woodford (115a)	G6 2300.00	11/16 1/11 3/22 5/10 7/19 9/8	2.4 0.23 0.14 0.93 2.4 0.64	4.6 0.23 0.23 4.6 4.6 0.32	1 1 3 1 2 2	0.00 0.00 0.00 0.00 0.00	0.00	0.02 0.02		
Lake Tahoe at Tahoe City (39)	G7 1710.00	11/15 1/10 3/21 5/9 7/18 9/7	0.43 0.07 0.03 0.43 0.23 0.20	0.93 0.23 0.036 4.6 0.23 0.20	0 0 1 0 1 2	0.00 0.00 0.00 0.00 0.00	0.00	0.00 0.02		
Truckee River near Farad (53)	G7 1195.00	10/4 11/15 11/30 1/10 2/7 3/21 4/4 5/9 6/6 7/18 8/6 9/7	0.23 11 62 0.35 6.2 2.4 2.3 0.23 2.3 2.4 1.3 0.64	0.62 4.6 23 4.6 3.3 0.93 2.3 0.23 0.50 0.23 2.3 2.4	4 7 20 7 2 15 10 7 4 2 20 6	0.00 0.00 0.00 0.00 0.00 0.00	0.00	*0.06 *0.06 *0.24 *0.06 *0.02 *0.06 *0.07 *0.04 *0.05 *0.06 *0.04		
Truckee River near Truckee (52)	G7 1600.50	11/15 1/10 3/21 5/9 7/18 9/7	0.20	0.28	1 1 1 1 1 1	0.00 0.00 0.00	0.00	0.01 0.03		
Walker River, East near Bridgeport (116a)	G9 3200.00	11/16 1/11 3/22 5/10 7/19 9/8	2.4 0.04 0.036 0.091 > 11 0.32	0.43 0.04 0.43 0.073 0.29 0.32	15 4 5 4 4 25	0.00 0.00 0.00	0.01 0.04	0.23 0.04		
Walker River, West near Coleville (116b)	G9 2400.00	11/16 1/11 3/22 5/10 7/19 9/8	0.93 0.09 0.15 0.23 2.4 0.32	0.93 0.09 0.091 0.23 0.29 2.4	1 1 1 2 1 6	0.00 0.00 0.00	0.02 0.01	0.02 0.01		

* Total phosphate

TABLE D-5
DESCRIPTION OF SALINITY
OBSERVATION STATIONS

STATIONS	MAP REFER- ENCE NUMBER	TIME INTERVAL (a)		LOCATION
		Hours	Min.	
SUISUN BAY				
E0 3100.90	Crockett	3	30	West end of Carquinez Strait, south shore, 0.2 mile east of Carquinez Bridge on wharf of C and H Sugar Refinery Corporation
E0 3300.10	Martinez	3	50	Sampled from Shell Oil Company dock, about 0.6 mile downstream from Southern Pacific Company railroad bridge.
E0 3200.90	Port Chicago	4	20	South shore of Suisun Bay at U.S. Naval ammunition loading wharf below Port Chicago.
E0 3200.00	Middle Point			South shore of Suisun Bay, about 0.5 mile upstream from Middle Point at Allied Chemical Corporation yard.
B9 1070.10	Pittsburg	1	5 00	East end of Suisun Bay, south shore, at Pittsburg Yacht Harbor.
SACRAMENTO RIVER DELTA				
B9 1110.00	Collinsville	2	5 25	Sacramento River, north bank, at junction with San Joaquin River.
B9 1140.50	Emmerton	3	5 45	Sacramento River, south bank, 5.9 miles downstream from Rio Vista.
B9 1160.00	Threemile Slough Bridge	4	5 55	At junction of slough and Sacramento River.
B9 1210.10	Rio Vista Bridge	5	6 05	Sacramento River at Highway 12 Bridge.
B9 1600.10	Isleton Bridge	6	6 30	Sacramento River, one mile upstream from Isleton.
SAN JOAQUIN RIVER DELTA				
B9 5020.00	Antioch	7	5 55	San Joaquin River at City Water Works pumping plant.
B9 5020.10	Antioch Bridge	8	6 10	San Joaquin River at Antioch Bridge.
B9 5040.50	Jersey Island	9	6 20	San Joaquin River, left bank, approximately 1.5 miles below mouth of False River.
B9 5060.00	Threemile Slough	10	6 30	Threemile Slough, west bank, at junction of slough with the San Joaquin River.
B9 5060.80	False River	11	6 40	False River, north bank, approximately 0.75 mile upstream from junction with San Joaquin River at Bradford Island.
B9 5100.00	San Andreas Landing	12	6 55	San Joaquin River, right bank, one mile below the mouth of the Mokelumne River.
B9 5220.50	Dutch Slough	13	7 05	At Bethel Island Bridge.
B9 5820.00	Mossdale Bridge	14	10 50	San Joaquin River at U.S. Highway 50 crossing about 3 miles southwest of Lathrop.

(a) Time interval between high tide at Golden Gate and time for taking samples at station.

TABLE D-1
MAXIMUM OBSERVED SALINITY AT BAY AND DELTA STATIONS
FOR SELECTED YEARS
In parts of chloride per million parts of water*

Station (a)		1931	1939	1944	1952	1958	1962	1963	1964	1965	1967
Sacramento-San Joaquin System Unimpaired runoff in percent of average (c)		35	40	63	171	169	93	132	64	152	76
Suisun Bay											
Crockett	B9 3100.00				13,200	11,900	13,900	13,100	14,000	13,000	15,400
Martinez	B 3300.10	16,200	17,400		13,900	11,100	12,700	11,100	12,900	11,200	12,000
Port Chicago	B9 3200.00				6,400	5,830	9,370	4,200	11,200	9,710	10,700
Middle Point	B0 3200.00								10,100	9,840	10,100
Pittsburg	B9 1070.10				1,200	1,200	3,900	1,350	3,280	1,080	2,880
Sacramento River Delta											
Collinsville	B9 1110.00	12,000	10,400	4,700	783	550	2,430	1,300	3,730	2,080	3,900
Emmerton	B9 1140.50					29	841	382	1,470	270	1,370
Threemile Slough Bridge	B9 1160.00	8,000	5,900	1,010	175	18	232	134	459	103	651
Rio Vista Bridge	B9 1210.10	7,400	4,950	590	175	17	52	38	690	20	195
Isleton Bridge	B9 1600.10	6,350	2,500	50	125	14	18	14	20	13	22
San Joaquin River Delta											
Antioch	B9 5020.00	12,400	9,200	4,000	354	184	1,770	1,040	2,100	420	3,930
Antioch Bridge	B9 5020.10					122	479	317	132	210	1,675
Jersey Island	B9 5040.50					52	84	135	963	147	1,200
Threemile Slough	B9 5060.00					45	130	16	202	60	209
False River	B9 5060.50									174	892
San Andreas Landing	B9 5100.00						57	41	72	29	143
Dutch Slough	B9 5220.50	4,100	2,210	690	59	110	192	48	434	68	420
Mossdale Bridge	B9 5220.00	120	100	100	122	219	308	14	318	170	304

* Ocean water contains, approx. 19,200 parts per million of chloride
a For location see Figure D-5
b Releases of stored water from Shasta Lake commenced in 1944
c Average taken as mean annual unimpaired flow at 100-mile stations of
major tributaries for 10-year period, October 1910 through September 1920,
and do not include runoff from minor tributaries and from valley floor

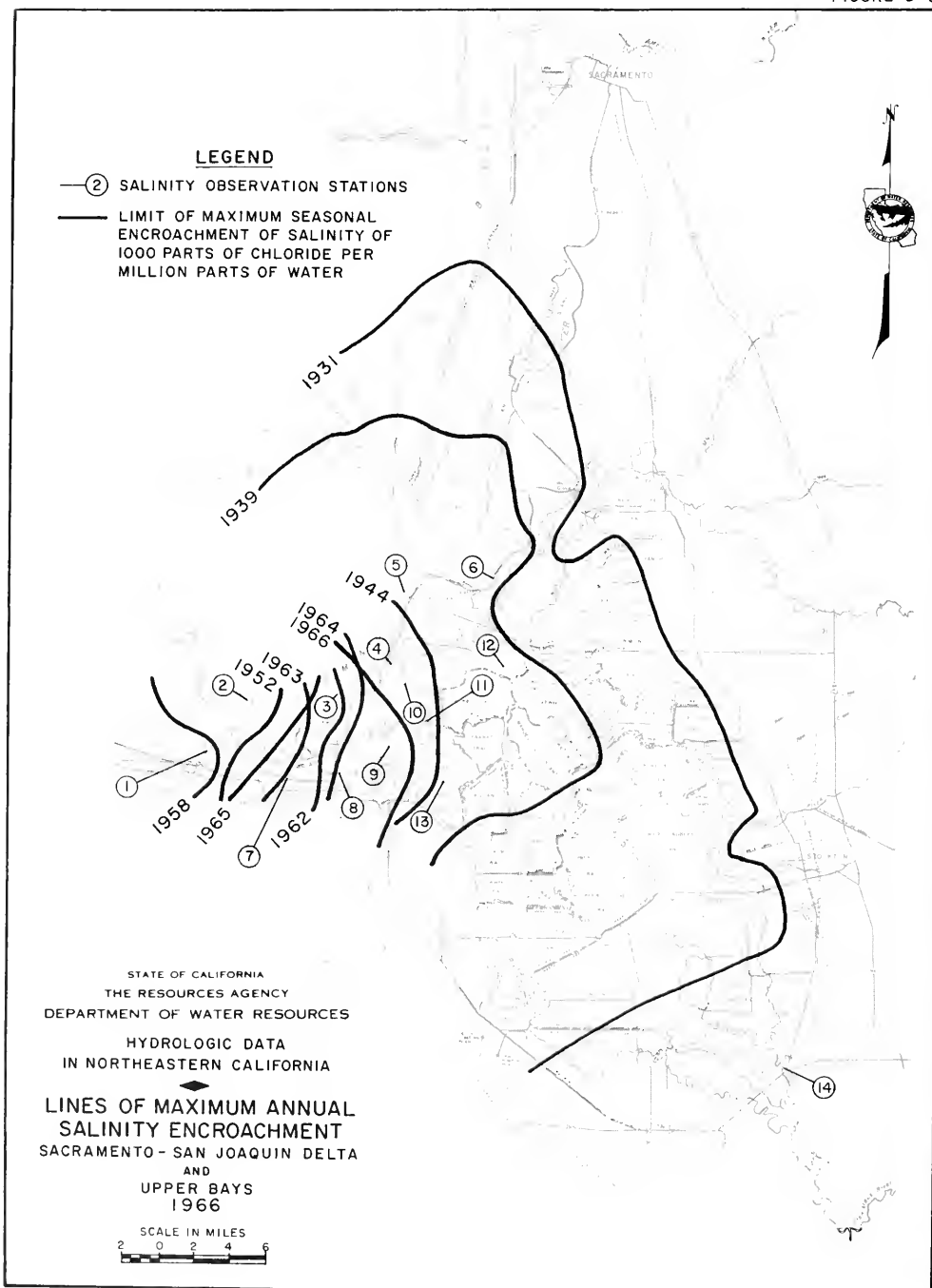


TABLE D-7

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS
In parts of chloride per million parts of water

Station	October 1965							
	2	6	10	14	18	22	26	30
Crockett Bay								
B9 3100.90 Crockett	8230		ed3550	7710	6680	4740	9000	7220
B9 3300.10 Martinez							6090	5540
B9 3200.90 Port Chicago	ed3230	3140	a3590	5400	2820	2760	3450	3400
B9 3200.00 Middle Point	3320	2590	2760	1130	284			d2000
B9 1070.10 Pittsburg			130	140	a139	b442	97	a72
San Joaquin River Delta								
B9 1110.00 Collinsville								
B9 1140.50 Eumaton	a26	19	26	26	a17	17	28	a22
B9 1160.00 Threemile Slough								
Bridge	a13	12	11	a12	a11	10	14	a12
B9 1210.10 Rio Vista Bridge	b9	8	11	ad7	b7	8	7	6
B9 1600.10 Isleton Bridge	b8	7	6	7	b5	7	r	6
San Joaquin River Delta								
B9 5020.00 Antioch	a42	27	50	a38	a27	35		a36
B9 5020.10 Antioch Bridge	a26	34	25	ad26	a22	26	24	a27
B9 5040.50 Jersey Island		d16	b418	a17	a20	24	a17	a17
B9 5060.00 Threemile Slough	a14	16	13	a13		17	a16	a14
False River	a13	15	15	a16	a17	18	a17	a15
B9 5100.00 San Andreas Landing	a15	15	16	14	a17	12	16	a14
Dutch Slough	a21	22	a21	d124	a24	27	a29	a29
B9 5820.00 Mossdale Bridge							103	
Station	November 1965							
	2	6	10	14	18	22	26	30
Crockett Bay								
B9 3100.90 Crockett	7850	10200	9850	9910	9170	6870		6880
B9 3300.10 Martinez	6620	8610				a1400		5220
B9 3200.90 Port Chicago	2920	3940	4960	4400	3600	1850	2340	1770
B9 3200.00 Middle Point	2010	3750	3800	4500	ae2840		596	1690
B9 1070.10 Pittsburg	d82	65		a182	74	39		a21
San Joaquin River Delta								
B9 1110.00 Collinsville		49	143		31	26		17
B9 1140.50 Eumaton		19	22	abd14	15	8	a13	12
B9 1160.00 Threemile Slough								
Bridge	10	9	12	a11	10	9	a10	10
B9 1210.10 Rio Vista Bridge	7	8	3	8	7	8	9	11
B9 1600.10 Isleton Bridge	6	5	6	7	6	11	7	7
San Joaquin River Delta								
B9 5020.00 Antioch	30	40	59	a65	49	24	a28	22
B9 5020.10 Antioch Bridge	25	27	25	34	32	33	2c	a36
B9 5040.50 Jersey Island	b420	13	a16	abd18	18	24	abd19	26
B9 5060.00 Threemile Slough		14		a15		14	ad17	
False River	15	15	a15	a15	17	16	a19	31
B9 5100.00 San Andreas Landing								
Dutch Slough	29	31	a33	a26	39	41	a49	56
B9 5820.00 Mossdale Bridge	57			bd56		d45		

*Samples taken at four-day intervals approximately one and one-half hours after high high tide.

a Taken after low high tide.

b Taken on following day.

c Taken two days later.

d Taken over one hour off scheduled time.

e Taken on preceding day.

f Taken two days earlier.

TABLE D-7
SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS
In parts of chloride per million parts of water

Station		December 1965							
		2	6	10	14	18	22	26	30
		Suisun Bay							
B0 3100.90	Crockett	6840	ed9370	8420	3810		6930	5840	5810
B0 3300.10	Martinez	6220				5990	5380		
B0 3200.90	Port Chicago		4180		916	1770	2240	932	1840
B0 3200.00	Middle Point	2330	3590	a1520	a772	468	1840	461	1320
B9 1070.10	Pittsburg				a44	37	34	bd34	433
		Sacramento River Delta							
B9 1110.00	Collinsville	17		a21	21	18	12	a18	20
B9 1140.50	Emmerton	12	13	15	15	14	14	bd13	16
B9 1160.00	Threemile Slough								
	Bridge	7	12	13	12	8			8
B9 1210.10	Rio Vista Bridge	7	11	6	6	8	7	8	7
B9 1600.10	Isleton Bridge	6	6	5	5	7	6	9	6
		San Joaquin River Delta							
B9 5020.00	Antioch	25	35	41	44	35	32	a31	33
B9 5020.10	Antioch Bridge**	17	20	26	22	23	20	18	21
B9 5040.50	Jersey Island		bd34	a36	bd34		cd29	a30	31
B9 5060.00	Threemile Slough	27	33	26	d22	d26	6		
	False River	30	28	a35	a35	24	a25		d28
B9 5100.00	San Andreas Landing	29	31	22	20	20	d22	27	17
	Dutch Slough	59	63	a56	50	46	a45	a46	46
B9 5820.00	Mossdale Bridge								
Station		January 1966							
		2	6	10	14	18	22	26	30
		Suisun Bay							
B0 3100.90	Crockett	5380	4250	2690	3210		5210	4310	6300
B0 3300.10	Martinez						4900	3260	5020
B0 3200.90	Port Chicago	1670	1120	56	132	1590	1050	310	2680
B0 3200.00	Middle Point		a59	37	a30		580	33	2990
B9 1070.10	Pittsburg				36		30	a26	31
		Sacramento River Delta							
B9 1110.00	Collinsville	16	19	17	12	12	a12	14	10
B9 1140.50	Emmerton	12	15	a12	bd10	12	13	12	10
B9 1160.00	Threemile Slough								
	Bridge	14	16		8	12	a14	10	10
B9 1210.10	Rio Vista Bridge	9	13	a410	10	10	7	9	6
B9 1600.10	Isleton Bridge	8	10	7	6	7	6	6	5
		San Joaquin River Delta							
B9 5020.00	Antioch	34	35	a40	36	28	30	35	32
B9 5020.10	Antioch Bridge**	19	20	32	26	26	29	29	33
B9 5040.50	Jersey Island	29	a41	a47	42	bd33	32	bd31	
B9 5060.00	Threemile Slough		34	a27		24	28	21	29
	False River	30	35	a32	28	29	29	35	32
B9 5100.00	San Andreas Landing	24	36	24	9	23	29	27	16
	Dutch Slough	63	63	a68	65	66	a55	64	d64
B9 5820.00	Mossdale Bridge		a42				a80	118	

*Samples taken at four-day intervals approximately one and one-half hours after high tide.

a Taken after low high tide.

c Taken two days later.

e Taken on preceding day.

d Taken over one hour off scheduled time.

f Taken two days earlier.

** Chloride values computed from conductivity recorder

TABLE D-7

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS
In parts of chloride per million parts of water

Station	February 1966							
	2	6	10	14	18	22	26	30
Suisun Bay								
BO 3100.90 Crockett	5900	6500	4000	6330	7560	6870	6150	
BO 3300.10 Martinez					a2030	5370		
BO 3200.90 Fort Chicago	2050	1190	50	1810	3240	1450	a108	
BO 3200.00 Middle Point	1320	619	a33	104	617	1100	a68	
B9 1070.10 Pittsburg	bd38	d36	abd41	d41	36	42	40	
Sacramento River Delta								
B9 1110.00 Collinsville	15	19	20		24	a24	20	
B9 1140.50 Emmon	13	15	16	17	21	22		
B9 1160.00 Threemile Slough Bridge	14	15	31	13	15	19	17	
B9 1210.10 Rio Vista Bridge	8	11	9	9	10	11	11	
B9 1600.10 Iseleton Bridge	6	10	7	5	8	9	9	
San Joaquin River Delta								
B9 5020.00 Antioch	36	35	40	43	36	49	46	
B9 5020.10 Antioch Bridge**	23	36	41	46	45	53	53	
B9 5040.50 Jersey Island	40		58	53	51	a51	52	
B9 5060.00 Threemile Slough	24			41		41	29	
B9 5100.00 False River	35	ad39	45	bd51	44	a44	44	
B9 5100.00 San Andreas Landing	29	36	30	33	36	35	28	
B9 5820.00 Dutch Slough	74	76	61	75	80	83	79	
B9 5820.00 Mossdale Bridge	a74	d46		bd88	a91	ad96	d119	
March 1966								
Station	2	6	10	14	18	22	26	30
Suisun Bay								
BO 3100.90 Crockett	7360	8490	8020		6730		7600	5760
BO 3300.10 Martinez					a3820	a3550	5270	4200
BO 3200.90 Fort Chicago	3250	3140	1670	1730	2030	317	248	158
BO 3200.00 Middle Point	1980	2050	a422	ae197	908	101	1290	
B9 1070.10 Pittsburg		39			28		23	22
Sacramento River Delta								
B9 1110.00 Collinsville		28		21	14	12	13	15
B9 1140.50 Emmon	22	22	21	20	15	8	11	13
B9 1160.00 Threemile Slough Bridge	16	17	16	13	8	9	8	10
B9 1210.10 Rio Vista Bridge	8	12	16	9	8	a9	6	8
B9 1600.10 Iseleton Bridge	6	10	6	6	4	6	5	7
San Joaquin River Delta								
B9 5020.00 Antioch	ed39	39	44	35	30	30	23	19
B9 5020.10 Antioch Bridge**	56	54	48	43	33	32	26	23
B9 5040.50 Jersey Island	44	52	35	34	bd30	a38	28	bd29
B9 5060.00 Threemile Slough	32	25	24	23	15		17	17
B9 5100.00 False River	38	35	32	29	25	22	23	20
B9 5100.00 San Andreas Landing	8	22	16	7	15	15	13	8
B9 5820.00 Dutch Slough	55	72	69	70	65	a43		34
B9 5820.00 Mossdale Bridge	all8		122		a61	a196	201	

*Samples taken at four-day intervals approximately one and one-half hours after high high tide.

a Taken after low high tide.

b Taken on following day

c Taken two days later

d Taken over one hour off scheduled time

e Taken on preceding day

f Taken two days earlier

** Chloride values computed from conductivity recorder

TABLE D-7
SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS*
In parts of chloride per million parts of water

Station	April 1966							
	2	6	10	14	18	22	26	30
Suisun Bay								
B0 3100.90 Crockett	8510	8360		5570	10400	8490	8720	9420
B0 3300.10 Martinez	A4950	5150	2900	d1630		6570	5550	
B0 3200.90 Port Chicago	1760	2150		468	4360	3680	4320	ed3820
B0 3200.00 Middle Point	1670	1050	1050	261	3430	2610	2400	
B9 1070.10 Pittsburg	23	abd26	29	20	a48	a46	bd153	
Sacramento River Delta								
B9 1110.00 Collinsville	14			13	a17	a15	83	a49
B9 1140.50 Emmonson		14	13	8	a9	13	d24	a23
B9 1160.00 Threemile Slough Ex.	9	a6	7	7	a8	all	10	a8
B9 1210.10 Rio Vista Bridge	7	5	6	5	5	5	11	6
B9 1600.10 Isleton Bridge	6	5	5	4	5	5	5	4
San Joaquin River Delta								
B9 5020.00 Antioch	20	a24	21	18	a21	a26	57	a75
B9 5020.10 Antioch Bridge	23	23	20	19	16	18	22	28
B9 5040.50 Jersey Island		bd23	24	15	abd11	a14	24	
B9 5060.00 Threemile Slough				11	a9	a8		
B9 5100.00 False River	21	21	ed17	13	ed13	12	d14	all
B9 5100.00 San Andreas Landing	12	12	6	5	a7	a5	10	a7
B9 5820.00 Dutch Slough	36	27	d23	28	a26	22	13	a17
B9 5820.00 Mossdale Bridge								
Station	May 1966							
	2	6	10	14	18	22	26	30
Suisun Bay								
B0 3100.90 Crockett	10000	11400		9340	9180	11400	9630	10400
B0 3300.10 Martinez		a5420			7210		ae4330	8530
B0 3200.90 Port Chicago	4030	5560	5170	5330	4650	6090	4950	4660
B0 3200.00 Middle Point		4710		a1650		a2320	3150	4170
B9 1070.10 Pittsburg	a170	a320	382	a217	a126			a348
Sacramento River Delta								
B9 1110.00 Collinsville	a65	437	490	a108	a39	485	258	a202
B9 1140.50 Emmonson	a32	a59	85		a28	69	110	a63
B9 1160.00 Threemile Slough B.	a10	35	18	a13	a12	23	55	a26
B9 1210.10 Rio Vista Bridge	6	10	9	9	8	9	9	10
B9 1600.10 Isleton Bridge	8	8	7	7	7	8	8	10
San Joaquin River Delta								
B9 5020.00 Antioch	a73	a97	223	a88	a53	181	180	a112
B9 5020.10 Antioch Bridge**	36	102	90	56	39	73	87	117
B9 5040.50 Jersey Island			45	a15	28	a19	45	a22
B9 5060.00 Threemile Slough	a8	a9	17		a11		16	a20
B9 5100.00 False River	bd15	24	15	a12	a28	14	16	a18
B9 5100.00 San Andreas Landing	a8	a7	9	a8	a8	7	8	a10
B9 5820.00 Dutch Slough	a17	ad19	17	a18	d18	17	20	a19
B9 5820.00 Mossdale Bridge	195							

*Samples taken at four-day intervals approximately one and one-half hours after high high tide.

a Taken after low high tide

c Taken two days later

e Taken on preceding day

b Taken on following day

d Taken over one hour off scheduled time

f Taken two days earlier

** Chloride values computed from conductivity recorder

TABLE D-7

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS
In parts of chloride per million parts of water

Station	June 1966							
	2	6	10	14	18	22	26	30
Suisun Bay								
B0 3100.90 Crockett	11100	a10300	e11600	10500	13200	13700	e12000	13600
B0 3300.10 Martinez	a5670		a8370	10500	11900		a8550	
B0 3200.90 Port Chicago	6550	6870	35400	8300	9830	9400	38120	10700
B0 3200.00 Middle Point		5960	34760	6650	6220		a5920	
B9 1070.10 Pittsburg	a511	a581	a910	a81150	a1370		a2170	
Sacramento River Delta								
B9 1110.00 Collinsville	a467	1260	a889	a703		2940		a1980
B9 1140.50 Ematon	a81	d234	d292	a180	a347	1110	a8699	a842
B9 1160.00 Threemile Slough Bridge	a41		a49	a47	a290	651	a220	a342
B9 1210.10 Rio Vista Bridge	17	16	18	22	50	63	71	110
B9 1600.10 Isleton Bridge	10	12	12	d12	22	16	18	16
San Joaquin River Delta								
B9 5020.00 Antioch	a173	628	a487	a356	a837	2510	a1250	a1370
B9 5020.10 Antioch Bridge**	a147	270	272	342	830	1025	1065	1675
B9 5040.50 Jersey Island	70	121	a71	a87	bd570	553	520	a257
B9 5060.00 Threemile Slough		36	a45	a46	a70	d244		a227
B9 5100.00 False River	a36	90	a38	ad45	bd386	344	a196	d592
B9 5100.00 San Andreas Landing	a11	11	a12	a14	a21	16	a17	a33
B9 5820.00 Dutch Slough	20	24	a32	a42	83	112	a142	a163
B9 5820.00 Mossdale Bridge		218	d208	226	255	249	a228	222
July 1966								
Station	2	6	10	14	18	22	26	30
Suisun Bay								
B0 3100.90 Crockett	14200		312300	312500	14800	13700	314300	15100
B0 3300.10 Martinez								
B0 3200.90 Port Chicago	9750	8540	37430	10400	a7770	8460	39210	9230
B0 3200.00 Middle Point				2620	9450		36570	9750
B9 1070.10 Pittsburg	a2030			a2280		a2880	a22530	a2360
Sacramento River Delta								
B9 1110.00 Collinsville	a1990	3170	a2200		a2630	a3240	a2220	
B9 1140.50 Ematon	a850	a1090	a577	a754	a834	a1060	a671	a1090
B9 1160.00 Threemile Slough Bridge	a334	518	a245	a388	570	a336	a406	a366
B9 1210.10 Rio Vista Bridge	113	150	72	81	153	124	123	195
B9 1600.10 Isleton Bridge	22	9	9	8	10	8	13	13
San Joaquin River Delta								
B9 5020.00 Antioch	2920	2220	a1460	a1620	2930	a2160	a1310	a1820
B9 5020.10 Antioch Bridge**	1400	1220	1325	1400	1525	1325	1530	1470
B9 5040.50 Jersey Island	1200	850	nod289	a373	a444	a500	938	a511
B9 5060.00 Threemile Slough	a133	ad174		a252			a204	a269
B9 5100.00 False River	597	593	a276	a332	892	ad434	a349	a427
B9 5100.00 San Andreas Landing	a32	143	a53	61	a56	a60	a42	a66
B9 5820.00 Dutch Slough	218	272	a282	a353	391	a356	a338	d392
B9 5820.00 Mossdale Bridge	230	211		255	242	a239	264	268

*Samples taken at four-day intervals approximately one and one-half hours after high high tide

a Taken after low high tide

b Taken on following day

c Taken two days later

d Taken over one hour off scheduled time

e Taken on preceding day

f Taken two days earlier

** Chloride values computed from conductivity recorder

TABLE D-7

SALINITY OBSERVATIONS AT BAY AND DELTA STATIONS
in parts of chloride per million parts of water

Station		August 1966							
		2	6	10	14	18	22	26	30
		Suisun Bay							
B0 3100.90	Crockett		14000	e13700	15300	14100	13300	e13200	11400
B0 3300.10	Martinez					12000			
B0 3200.90	Port Chicago	9700		a7450		9200	8700	9250	8950
B0 3200.00	Middle Point	a8380	7180	e9430	10100	a7800	7850		7080
B9 1070.10	Pittsburg	a2240	a2550	a2600	a2190	a1870		a1740	1910
		Sacramento River Delta							
B9 1110.00	Collinsville	3900	a2510	a2300		2860	a1930	a1760	
B9 1140.50	Emmett	1370	a357	e940	a527	648	abd230	a361	
B9 1160.00	Threemile Slough Bridge	492	a218	a185	a331	236	a176	a128	a153
B9 1210.10	Rio Vista Bridge	29	63	88	105	83	75	23	32
B9 1600.10	Isleton Bridge	9	9	bd9	8	9	8	12	6
		San Joaquin River Delta							
B9 5020.00	Antioch	2380	a1610	a1330	a1200	1870	a844	a756	a955
B9 5020.10	Antioch Bridge**	1270	1090	1480	1260	980	1020	750	720
B9 5040.50	Jersey Island	1130	a585						
B9 5060.00	Threemile Slough Bridge	a220		a1120	a150			a84	a102
	False River	745	a314	a2270	a318	475	a188	a207	256
B9 5100.00	San Andreas Landing	100	56	a56	a66	a61	a37	a35	a40
	Dutch Slough	377	a372	a370	a420	376	a278	a242	d204
B9 5820.00	Mossdale Bridge	214	a265	a264	272	261	a273	240	225
		September 1966							
Station		2	6	10	14	18	22	26	30
		Suisun Bay							
B0 3100.90	Crockett	12600	13700	e12100	12100	12900	e10900	10900	14200
B0 3300.10	Martinez					bd6760	e9400	7760	a9570
B0 3200.90	Port Chicago	7100	8300		7180	7320	e6500	6670	7240
B0 3200.00	Middle Point	6380	6700	e5410					
B9 1070.10	Pittsburg	a1300	bd1280	a860	a942	a845	a1180		1180
		Sacramento River Delta							
B9 1110.00	Collinsville	1580	a1190		a688	a755	a833	a724	a952
B9 1140.50	Emmett	440	a350	a112	abd111	143	a116	ad130	196
B9 1160.00	Threemile Slough Bridge	114	a67	a65	a57	a60	a47	a41	46
B9 1210.10	Rio Vista Bridge	51	12	20	35	33	23	18	18
B9 1600.10	Isleton Bridge	11	12	16	15		10	8	9
		San Joaquin River Delta							
B9 5020.00	Antioch	896	a560	a605	652	a469	a287	a255	598
B9 5020.10	Antioch Bridge**	420	580	400	300	270	280	225	255
B9 5040.50	Jersey Island							a58	118
B9 5060.00	Threemile Slough Bridge	a77	a60	a45	a34	a28	a57	a49	28
	False River	151	a116	a101	106	a70	a20	a17	a65
B9 5100.00	San Andreas Landing	a23	28	a24	25	23	a20	a17	d15
	Dutch Slough	197	136	ad132	108	a87	a70	a64	a59
B9 5820.00	Mossdale Bridge	229	a220	a214	228	a226	a206		a204

*Samples taken at four-day intervals approximately one and one-half hours after high tide

a Taken after low high tide

b Taken on following day

c Taken two days later

d Taken over one hour off scheduled time

e Taken on preceding day

f Taken two days earlier

** Chloride values computed from conductivity recorder

TABLE D. 8

WATER TEMPERATURES
DAILY MAXIMUM and MINIMUM
 (IN DEGREES FAHRENHEIT)

WATER YEAR	STATION NO	STATION NAME
1966	A 0 2105	Sacramento River at Sacramento Weir

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	63	61	59	58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	64	62	67	65	70	69	68	66	67	65	1
2	63	62	58	57	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	65	62	67	64	69	68	69	67	68	66	2
3	64	62	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	66	64	68	65	69	68	70	68	70	68	3
4	63	62													65	64	69	67	69	68	72	69	71	68	4
5	63	62													65	64	69	67	68	67	72	70	73	69	5
6	63	61													66	64	68	66	69	67	73	71	72	70	6
7	64	62													66	64	67	65	68	66	71	69	71	69	7
8	65	63													65	64	69	66	68	67	71	69	71	69	8
9	64	63													65	64	69	67	68	67	70	69	71	69	9
10	64	63										53	NR	52	65	63	71	68	68	66	70	69	71	69	10
11	64	62										53	52		64	62	71	69	68	66	69	68	70	68	11
12	64	63										53	53		65	62	72	69	67	66	70	69	69	67	12
13	64	62										NR	NR		67	65	73	70	68	66	70	68	68	66	13
14	63	61													67	66	74	71	68	66	69	67	67	65	14
15	62	61													67	66	74	72	69	66	70	68	67	65	15
16	61	59													68	66	74	72	69	67	70	69	68	66	16
17	59	58													68	66	74	72	69	66	69	68	67	66	17
18	58	57													69	67	75	72	69	67	69	68	67	66	18
19	58	57													70	68	75	73	70	68	68	67	68	66	19
20	58	57													71	69	73	71	70	68	67	66	68	67	20
21	NR	NR											NR	NR	70	68	71	68	71	68	67	65	68	67	21
22													NR	NR	58	56	69	67	68	66	71	69	69	67	22
23													NR	NR	57	57	70	67	67	65	72	70	68	66	23
24													NR	NR	70	68	68	66	71	69	68	67	69	68	24
25	NR	NR													71	68	69	67	71	68	68	66	68	67	25
26	60	59													NR	NR	71	68	69	67	71	69	68	66	26
27	60	59													61	59	70	68	70	68	68	66	68	66	27
28	59	58													62	60	68	66	70	69	70	68	68	66	28
29	59	58													62	60	68	66	70	69	70	68	68	66	29
30	60	58													62	60	68	66	71	69	70	67	67	66	30
31	59	58	NR	NR	NR	NR	-	-	-	-	NR	NR	-	-	68	66	-	-	68	65	67	65	-	-	31
AVG	NR		NR		NR	NR	NR		NR	NR	NR		NR		67		69		68		68		68		AVG
MAX	NR		NR		NR	NR	NR		NR	NR	NR		NR	NR	71		75		72		73		73		MAX
MIN	NR		NR		NR	NR	NR		NR	NR	NR		NR	NR	62		64		65		65		65		MIN

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO	DAY
75E	June	18, 19	NR		

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	14 SEC T & R B & M	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
			DATE		DATE			
38 36 09	121 33 12	NE 29 9N 4E	76	July 5, 1965	43	Jan. 3, 1965	Nov. 14, 1964	Present
Station located 100' below weir, 4 miles North West of Sacramento								

TABLE D 8

WATER TEMPERATURES
DAILY MAXIMUM AND MINIMUM
 (IN DEGREES FAHRENHEIT)

WATER YEAR	STATION NO	STATION NAME
1966	AO 2170	Sacramento River at Fremont Weir, West End

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	61	61	56	56	49	49	45	45	46	46	48	48	61	60	63	62	66	65	68	68	65	65	64	63	1
2	61	61	56	56	49	49	45	45	46	46	49	48	61	60	64	63	66	66	68	67	67	65	64	63	2
3	61	61	56	56	49	49	45	44	47	46	49	49	61	60	66	64	66	65	67	66	67	66	66	64	3
4	61	61	56	56	49	49	44	44	47	47	49	49	60	60	66	65	66	65	67	66	68	67	67	66	4
5	61	61	56	56	49	48	44	44	46	46	49	49	60	60	66	65	66	65	67	66	68	67	67	68	5
6	61	61	55	55	48	48	45	44	46	46	49	49	61	60	65	65	65	64	67	66	68	67	68	68	6
7	61	61	55	55	48	48	45	45	47	46	49	49	61	61	65	65	64	64	66	66	68	68	68	68	7
8	61	61	55	55	48	48	46	45	48	48	50	49	61	61	66	65	65	64	66	65	68	68	68	68	8
9	62	61	55	55	48	48	46	46	48	48	51	50	61	60	66	66	66	65	65	65	68	68	68	68	9
10	62	61	55	55	48	48	46	46	48	48	52	51	60	59	66	66	67	66	65	65	69	68	68	68	10
11	62	61	55	55	48	48	46	46	48	48	52	52	59	59	66	66	68	67	65	65	67	67	68	68	11
12	62	61	55	55	48	48	46	46	48	48	52	52	58	57	66	66	68	68	65	65	67	67	67	67	12
13	62	62	55	55	48	48	46	46	48	48	52	52	58	57	66	68	68	68	65	65	67	67	67	66	13
14	62	61	55	54	48	48	46	46	48	48	54	52	57	56	68	68	69	68	65	65	67	67	67	66	14
15	61	60	54	54	48	48	46	46	48	48	55	54	57	56	67	67	70	69	65	65	67	67	67	66	15
16	60	59	54	54	48	47	46	46	48	48	55	55	60	58	66	66	70	70	65	65	67	67	65	65	16
17	59	58	54	54	47	46	46	46	48	48	55	54	61	60	66	66	70	70	65	65	67	67	65	65	17
18	58	56	54	54	46	46	46	46	49	48	54	52	61	61	67	66	71	70	66	65	67	67	65	65	18
19	56	56	55	54	46	46	46	46	49	49	52	52	62	61	68	67	71	70	66	65	67	67	65	65	19
20	56	56	55	55	46	46	46	45	50	49	52	51	62	60	68	67	71	69	66	66	67	67	66	65	20
21	56	56	55	54	46	46	45	45	50	50	52	52	60	59	68	68	69	67	66	66	66	66	66	65	21
22	56	56	54	54	46	45	45	44	50	50	52	52	59	58	68	67	67	66	67	66	66	66	66	66	22
23	56	56	54	53	45	44	44	44	51	50	52	52	59	58	67	67	66	65	67	66	66	65	66	65	23
24	56	56	53	52	44	44	45	44	51	51	52	52	60	59	67	67	65	65	67	67	66	65	65	65	24
25	56	56	52	52	45	44	46	45	50	50	54	52	63	61	68	67	66	65	67	67	65	65	65	65	25
26	56	56	52	51	44	44	46	45	50	50	55	54	63	62	68	67	67	66	67	67	65	65	65	65	26
27	56	56	51	50	45	44	46	45	50	48	56	55	63	62	68	68	68	67	67	67	65	65	65	64	27
28	56	56	50	50	45	45	46	45	48	48	57	56	62	62	68	68	68	68	67	67	65	65	65	65	28
29	56	56	50	50	45	45	46	46	-	-	58	57	62	61	68	67	68	68	67	67	65	65	65	65	29
30	56	56	50	49	45	45	46	46	-	-	59	58	62	61	67	66	68	68	67	66	65	64	65	65	30
31	56	56	-	-	45	45	46	46	-	-	60	59	-	-	66	65	-	-	66	65	64	63	-	-	31
AVG.	59	59	56	56	49	49	46	46	48	48	52	52	60	60	66	66	67	66	66	66	69	68	68	68	AVG.
MAX.	62	62	56	56	49	49	46	46	51	51	60	60	63	63	66	66	71	71	68	68	69	69	68	68	MAX.
MIN.	56	56	56	56	49	49	44	44	46	46	48	48	56	56	62	62	64	64	65	65	63	63	63	63	MIN.

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO.	DAY	TEMPERATURE	MO.	DAY
71	June	18-20	44	Dec	23-27
				Jan	3-6, 24-26

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	1 4 SEC T. & R B & M.	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
				DATE		DATE		
38 45 34	121 39 59	NW 32 1N 3E	72	July 5, 1965	44		June 23, 1965	Preaent
Station located 0.1 mile West of Weir, 4.0 miles South East of Knights Landing								
(44) for many days.								

TABLE D 8

WATER TEMPERATURES
DAILY MAXIMUM and MINIMUM
 (IN DEGREES FAHRENHEIT)

WATER YEAR	STATION NO	STATION NAME
1966	A 0 5135	Feather River at Yuba City

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY		
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN			
1	62	62	58	58	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	66	65	75	73	80	75	72	70	1		
2	62	62	58	57													68	66	76	74	81	77	74	71	2		
3	62	62	57	56													69	67	76	74	80	77	77	73	3		
4	62	62	56	56													71	68	78	75	82	78	77	73	4		
5	62	62	57	56												NR	NR	73	70	78	76	81	78	74	5		
6	62	62	57	56													60	59	72	68	78	74	83	79	77	73	6
7	63	62	57	56													60	58	71	67	73	70	83	79	74	70	7
8	63	63	56	56													59	58	73	71	73	68	82	79	72	68	8
9	64	63	56	56													60	59	75	73	73	70	81	78	73	69	9
10	63	63	56	56													59	58	75	73	76	71	81	77	73	70	10
11	63	63	56	56													60	58	74	72	75	72	79	75	72	68	11
12	63	63	56	56													61	58	73	72	74	70	78	74	70	68	12
13	63	63	56	56													61	59	75	72	74	71	77	75	69	65	13
14	63	63	56	55													61	59	80	75	73	70	77	74	69	65	14
15	63	62	55	55													62	60	83	79	75	71	79	75	69	65	15
16	62	60	55	55													63	60	81	79	75	72	79	76	71	67	16
17	60	59	55	54													65	61	79	77	75	70	82	77	71	69	17
18	59	58	NR	NR													66	62	80	77	77	72	80	77	71	69	18
19	59	58															67	64	81	77	78	74	79	75	71	68	19
20	59	59															69	65	79	75	79	74	77	73	71	69	20
21	59	59															67	64	75	69	79	75	78	73	71	68	21
22	59	59															67	63	71	67	81	77	76	72	71	69	22
23	59	59															69	64	72	69	81	77	77	73	71	68	23
24	59	59															72	67	73	70	79	75	75	72	71	68	24
25	59	59															72	68	75	70	78	75	72	70	69	67	25
26	59	59															72	69	78	74	79	75	72	68	71	67	26
27	59	59															72	69	81	76	78	75	74	69	70	67	27
28	59	59															72	68	82	77	78	74	76	72	71	67	28
29	59	59								NR	NR						69	66	77	74	77	74	72	68	72	68	29
30	59	58	NR	NR									NR	NR			66	64	78	71	77	70	69	67	71	69	30
31	58	58			NR	NR	NR	NR				NR	NR				67	66	-	-	76	69	70	66	-	-	31
AVG		61																74		75		76		70		AVG	
MAX	64		NR		NR		NR		NR		NR		NR		NR		83		81		83		83		78		MAX
MIN		58		NR		NR				NR			NR		NR		65		68		66		65		65		MIN

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO	DAY
83E	June	15	NR		
	Aug.	6,7			

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	14 SEC T & R B & M	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
			DATE		DATE			
39 08 20	121 36 17	SE 23 15N 3E	89	July 29, 1964	38	January 1965	July 22, 1964	Present
Station located at Sacramento Northern Railroad Bridge. From May 5, 1966 to September 30, 1966 station relocated 1,000 feet upstream.								

TABLE D 8

WATER TEMPERATURES
DAILY MAXIMUM AND MINIMUM
 (IN DEGREES FAHRENHEIT)

WATER YEAR	STATION NO	STATION NAME
1966	A 0 5177	Feather River at Sutter Butte Canal Company Intake near Gridley

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	62	61	55	55	45	45	43	43	43	43	46	46	54	52	54	53E	62	61	70	69	73	71	69	67	1
2	62	61	55	55	45	45	43	42	43	43	46	45	54	53	55	54E	61	60	70	68	74	72	69	67	2
3	62	61	55	55	45	45	42	42	43	43	46	45	53	52	55	54E	61	59	69	68	75	74	69	67	3
4	62	60	55	55	45	45	42	42	43	43	45	44	53	52	56	53	61	59	70	68	76	74	70	67	4
5	62	61	55	55	45	45	45	42	44	43	44	44	53	52	56	55	60	59	70	68	76	74	71	68	5
6	62	61	56	56	45	45	45	45	45	45	44	45	53	52	55	54	60	58	70	68	76	74	70	68	6
7	63	62	55	55	45	45	45	44	45	45	45	45	53	52	55	54	60	58	70	68	75	74	70	68	7
8	63	62	55	55	45	44	45	44	44	44	46	45	53	52	55	54	61	59	69	68	75	74	69	67	8
9	62	62	55	55	44	44	44	44	44	44	46	46	52	52	55	55	64	61	69	68	75	73	70	68	9
10	62	61	55	54	44	44	44	44	44	44	47	46	52	50	55	54	65	62	69	68	75	73	70	67	10
11	62	61	54	54	44	44	44	44	44	43	47	46	50	48	55	54	65	63	70	68	74	73	69	67	11
12	61	61	54	54	44	44	44	43	43	43	46	46	48	48E	56	54	65	64	69	67	74	72	68	66	12
13	61	61	54	54	44	44	44	43	42	42	47	47	48	48E	57	55	67	64	69	68	74	73	67	65	13
14	60	60	54	54	44	44	44	42	42	42	47	47	49	48E	57	56	68	66	69	67	74	72	66	64	14
15	60	59	53	53	44	43	43	43	42	42	47	47	50	49E	57	56	68	67	68	67	74	73	66	64	15
16	59	58	53	52	43	42	43	43	42	42	47	45	52	50E	58	56	69	68	66	67	74	72	66	64	16
17	58	57	52	52	42	42	43	43	42	42	47	45	52	52E	58	57	70	68	69	67	75	73	66	64	17
18	57	57	52	52	42	42	43	43	43	43	45	45	52	52E	59	58	71	69	69	68	75	73	66	65	18
19	58	57	52	50	42	41	43	42	44	43	46	45	52	49E	60	58	72	70	70	68	75	73	67	65	19
20	58	58	50	50	41	41	42	41	45	44	47	46	50	48E	61	60	71	69	70	69	74	72	67	65	20
21	58	58	50	50	41	41	41	41	45	45	47	46	50	48E	62	60	69	67	72	71	74	72	68	66	21
22	58	58	50	50	41	40	41	41	45	45	48	47	52	50E	61	60	68	66	73	71	74	72	67	66	22
23	58	57	50	50	40	40	41	41	46	45	49	49	53	52E	62	60	68	66	73	72	73	72	68	66	23
24	57	57	50	50	41	41	41	41	47	46	50	49	54	50E	62	60	67	66	73	71	72	71	68	66	24
25	57	57	50	48	41	41	42	42	47	46	50	49	55	53E	63	61	68	65	72	71	72	70	68	66	25
26	57	57	47	46	41	41	42	42	47	46	52	50	55	54E	64	62	68	66	72	71	71	70	68	66	26
27	57	56	46	46	41	41	42	42	46	46	53	51	55	53E	64	63	70	68	72	71	71	69	67	65	27
28	56	56	46	45	41	41	42	42	46	46	53	52	54	53E	63	63	71	69	72	71	71	70	67	66	28
29	56	56	45	45	43	41	42	42	-	-	53	52	54	52E	63	62	71	69	72	71	71	68	68	66	29
30	56	56	45	45	43	43	42	42	-	-	53	52	54	52E	63	62	71	69	71	69	71	68	68	66	30
31	56	55	-	-	43	43	43	42	-	-	53	52	-	-	63	61	-	-	72	69	68	67	-	-	31
AVG.	59	59	52	52	43	43	43	43	44	44	47	46	52	52	58	58	65	65	70	69	73	73	67	67	AVG.
MAX	63	63	56	56	45	45	45	45	47	47	53	53	55	55	64	64	72	72	73	73	76	76	71	71	MAX
MIN.	55	55	45	45	40	40	41	41	42	42	44	44	48	48	53	53	58	58	67	67	74	74	64	64	MIN.

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO	DAY
76	Aug.	4, 5, 6	40	Dec.	22, 23

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	1 SEC T & R. 8 & M.	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
				DATE		DATE		
		SE 33 19N 3E	87.5	8-10-59	34	1-26-62	7-13-56	Present
Station located on headwall of inlet structure to Sutter Butte Canal.								

TABLE D 8

**WATER TEMPERATURES
DAILY MAXIMUM and MINIMUM
(IN DEGREES FAHRENHEIT)**

WATER YEAR	STATION NO	STATION NAME
1966	8 9 1700	Sacramento River at Walnut Grove

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	64	64	59	58	56	51	49	44	51	47	53	52	58	56	65	63	70	67	73	71	73	72	68	67	1
2	64	64	59	57	56	50	50	44	51	48	53	52	59	56	66	64	69	67	72	71	73	72	67	67	2
3	64	64	58	56	56	49	50	43	51	47	52	51	59	58	68	64	69	66	73	71	73	72	67	67	3
4	64	64	57	56	55	49	49	43	50	47	51	50	60	58	68	66	69	66	73	71	74	72	68	67	4
5	64	64	56	56	54	48	48	41	50	47	51	50	59	58	69	66	69	66	73	71	75	73	69	68	5
6	64	64	56	56	54	48	48	43	50	48	51	50	60	58	69	66	70	67	73	71	76	72	70	68	6
7	64	64	56	56	52	46	47	45	51	49	51	51	60	59	69	66	69	66	72	70	76	72	70	69	7
8	64	64	56	56	52	46	48	45	51	49	51	51	60	59	69	67	69	67	71	70	77	73	70	68	8
9	64	64	57	57	52	46	49	46	52	51	52	52	59	58	68	66	69	67	71	69	77	73	70	69	9
10	64	64	57	56	51	46	49	47	52	50	52	52	59	58	67	65	70	67	71	69	74	72	71	69	10
11	64	64	57	56	51	46	49	47	53	50	52	52	58	58	67	64	71	67	71	70	75	72	70	69	11
12	64	64	57	55	51	46	49	47	53	50	52	52	59	58	67	65	73	68	71	70	74	72	70	69	12
13	64	64	56	55	52	47	49	47	53	50	52	52	58	58	68	65	73	68	73	69	73	72	69	69	13
14	64	64	57	55	52	48	49	46	54	50	52	52	58	58	68	65	76	69	71	69	72	70	68	68	14
15	64	64	57	55	52	47	50	46	53	51	52	52	58	58	67	65	77	70	71	69	72	70	69	69	15
16	64	63	57	55	51	46	50	46	53	50	52	52	59	58	68	65	78	71	71	69	72	70	69	69	16
17	63	62	56	54	51	45	50	46	52	50	52	52	60	58	69	65	78	71	71	70	73	70	69	69	17
18	62	60	57	55	51	43	50	46	52	50	52	52	60	60	70	66	79	72	71	70	73	71	69	69	18
19	61	59	57	55	50	43	50	46	52	51	51	51	61	60	71	68	78	72	72	70	73	71	69	68	19
20	60	59	57	55	49	43	50	46	53	52	51	51	61	60	74	68	78	73	72	70	72	71	69	68	20
21	60	59	57	54	49	42	50	45	53	52	51	51	61	60	74	69	77	72	73	69	71	70	69	68	21
22	60	59	58	54	48	41	49	45	53	52	51	51	61	60	74	68	74	72	74	71	71	70	69	68	22
23	59	59	56	53	48	41	49	45	53	53	51	51	60	60	73	68	73	71	74	72	71	70	69	68	23
24	59	59	56	52	48	40	49	45	52	52	51	51	61	60	74	69	71	69	75	72	71	70	69	69	24
25	60	60	56	52	48	41	50	47	53	53	52	51	63	61	74	68	71	69	75	72	70	69	69	69	25
26	60	60	56	51	48	42	50	47	53	53	53	52	64	62	74	69	71	69	75	72	70	69	69	69	26
27	60	60	56	52	48	42	50	47	53	53	53	52	64	62	75	69	72	69	75	72	69	68	69	69	27
28	60	60	56	51	48	42	50	47	53	53	53	53	64	62	74	69	72	70	75	72	69	68	69	69	28
29	60	60	56	51	48	43	50	47	-	-	54	53	64	62	73	68	73	70	74	72	69	68	69	69	29
30	60	59	55	50	48	44	51	48	-	-	55	54	64	63	72	68	73	70	74	72	68	68	68	68	30
31	59	59	-	-	49	44	51	48	-	-	56	55	-	-	72	68	-	-	73	71	68	67	-	-	31
AVG.	62		56		48		43		51		52		60		68		71		72		72		69		AVG
MAX MIN	64	59	59	50	56	40	51	41	54	47	56	50	64	56	75	63	79	66	75	69	77	67	71	67	MAX MIN

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO	DAY
79	June	18	40	Dec.	24

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	1 4 SEC T & R B & M	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
			DATE		DATE			
38 14 22	121 30 57	SW35 5N 4E	79		40		1-15-64	Present
			79 for many days					

TABLE D 8

WATER TEMPERATURES
DAILY MAXIMUM and MINIMUM
 (IN DEGREES FAHRENHEIT)

WATER YEAR	STATION NO	STATION NAME
1966	B 9 5340	Old River at Clifton Court Ferry

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	
1	61		NR		51		48		50		53		62		64		NR		76		75		67		1
2	61		NR		50		48		50		51		66		65		NR		72		78		68		2
3	61		NR		50		47		50		50		66		66		NR		72		78		70		3
4	61		NR		50		47		50		49		66		69		67		72		78		75		4
5	64		NR		50		46		50		49		67		68		68		74		79		75		5
6	68		NR		50		47		50		52		68		68		69		74		79		73		6
7	68		NR		50		48		50		53		68		69		67		73		80		74		7
8	69		61		50		48		50		55		68		69		68		71		80		74		8
9	69		58		50		50		50		53		67		68		68		73		80		74		9
10	69		57		50		50		50		55		65		67		67		73		80		77		10
11	68		57		49		50		45		56		63		67		66		73		80		75		11
12	68		55		49		50		47		58		62		67		69		71		80		71		12
13	67		NR		49		49		47		59		62		68		71		69		79		69		13
14	66		NR		49		49		45		60		62		NR		75		69		78		66		14
15	63		54		49		49		45		59		65		NR		81		69		78		66		15
16	58		55		48		49		45		59		68		NR		83		72		78		69		16
17	57		55		48		48		46		59		68		NR		81		71		79		69		17
18	59		56		45		48		47		58		67		NR		80		72		79		70		18
19	60		56		45		48		48		59		63		NR		80		74		79		70		19
20	61		56		45		47		49		61		62		NR		82		73		76		70		20
21	62		57		44		46		50		57		63		NR		78		73		76		70		21
22	62		57		44		46		51		55		65		NR		72		76		76				22
23	62		57		44		46		53		54		65		NR		72		78		76				23
24	62		NR		43		45		53		55		68		NR		72		78		75				24
25	63		NR		43		45		54		57		70		NR		72		76		73				25
26	62		NR		44		45		54		58		67		NR		72		77		72				26
27	64		NR		45		45		53		58		65		NR		73		77		70				27
28	64		NR		45		45		53		58		64		NR		75		76		73				28
29	63		NR		45		47		-		58		64		NR		78		76		71				29
30	62		NR		46		47		-		60		64		NR		76		75		67				30
31	61		-		48		48		-		60		-		NR		-		73		65				31
AVG.	63		-		47		47		49		56		65		-		-		73		76				AVG.
MAX.																									MAX.
MIN.																									MIN.

All Figures picked from chart at HH tide.

YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO.	DAY
83E	June	16	43E	Dec.	24, 25

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	1 4 SEC. T. & R. B & M	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
			DATE		DATE			
37 49 28	121 33 05	SE 20 1S 4E	83	July 25, 1964	43		10-18-63	Present
Station located approximately 2,000' below junction with Grant Line Canal.								

TABLE D 8

WATER TEMPERATURES
DAILY MAXIMUM and MINIMUM
 (IN DEGREES FAHRENHEIT)

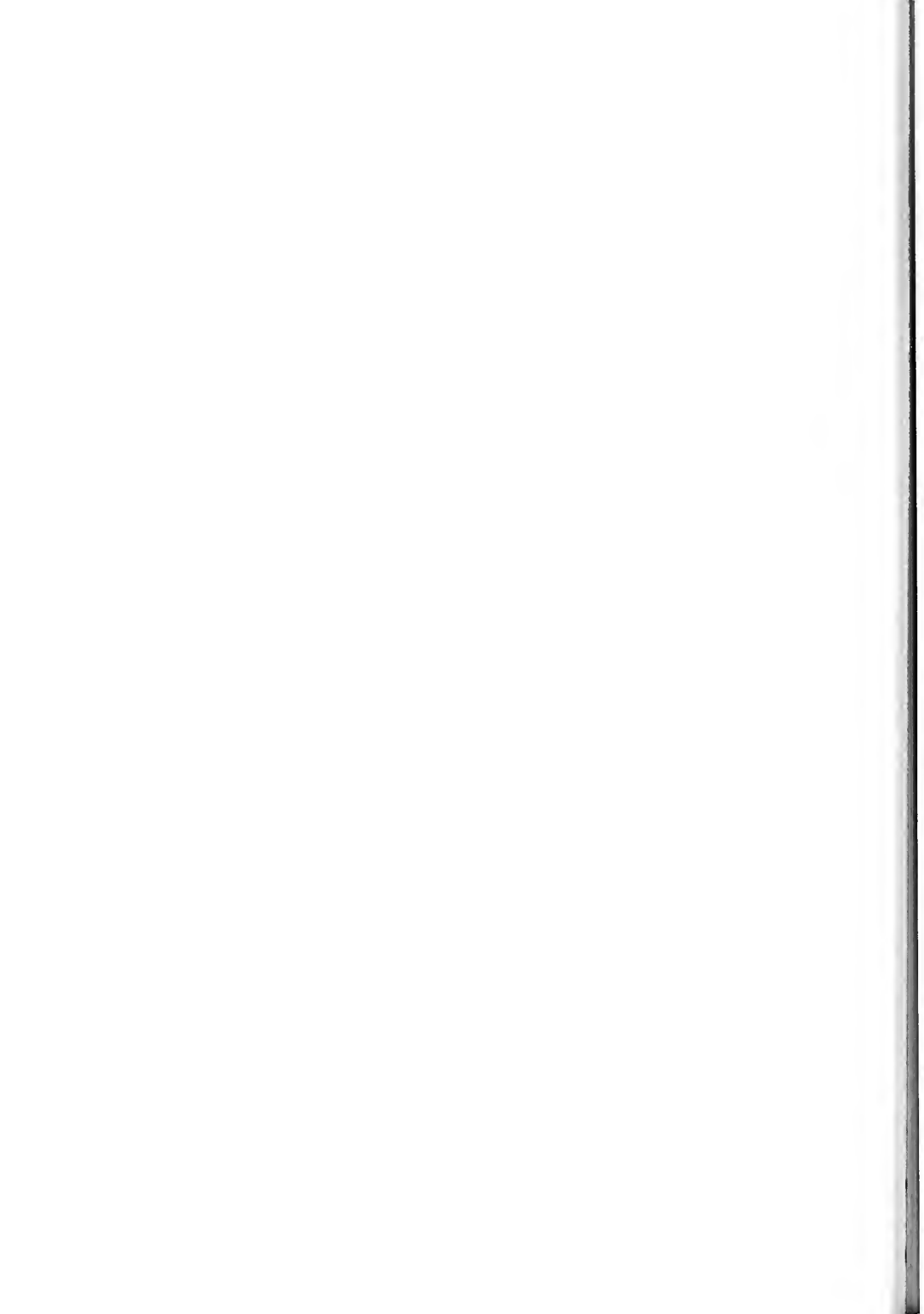
WATER YEAR	STATION NO	STATION NAME
1966	8 9 5620	San Joaquin River at Rindge Pump

DAY	OCT.		NOV.		DEC.		JAN.		FEB.		MAR.		APR.		MAY		JUNE		JULY		AUG.		SEPT.		DAY
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	
1	70	67	68	66	56	54	44	44	47	46	61	60	66	62	69	66	72	70	81	77	83	78	75	71	1
2	70	68	68	65	54	52	44	44	48	47	59	57	66	63	70	67	71	69	80	76	84	78	78	72	2
3	69	68	68	65	52	51	45	45	48	48	59	57	65	63	71	68	74	69	80	75	84	79	78	73	3
4	69	68	68	67	52	52	45	45	48	48	58	58	63	62	70	67	73	69	81	76	85	79	78	74	4
5	68	67	67	67	52	52	45	45	48	48	57	56	67	63	70	67	74	70	80	76	85	79	79	75	5
6	70	68	68	66	52	51	45	44	50	49	60	57	65	63	71	68	71	70	80	75	84	80	77	75	6
7	73	68	67	66	51	50	47	45	50	49	61	60	65	63	71	67	73	68	80	75	84	80	76	74	7
8	72	70	66	66	50	49	51	46	50	49	61	60	66	63	71	68	74	69	79	74	84	81	77	72	8
9	71	70	66	64	49	49	51	50	50	49	60	59	64	63	70	68	75	69	78	73	84	81	77	74	9
10	70	69	67	65	49	48	51	50	51	50	61	59	64	63	69	67	75	71	78	72	83	81	76	74	10
11	71	69	65	65	48	47	51	50	51	49	62	59	64	63	70	67	76	72	77	73	81	79	74	72	11
12	71	69	65	65	48	47	50	49	52	50	60	59	65	63	71	67	76	72	76	72	80	77	73	71	12
13	71	69	65	63	48	47	50	50	50	48	62	59	66	63	72	69	76	72	75	72	79	77	72	69	13
14	71	70	64	62	48	46	50	50	50	49	61	59	67	64	70	68	80	75	75	72	81	76	72	69	14
15	70	67	62	62	47	46	50	49	51	50	62	60	69	64	71	68	80	77	76	72	82	77	73	69	15
16	68	63	62	62	48	46	50	48	53	52	62	61	69	66	72	68	80	78	76	72	83	77	74	69	16
17	66	60	62	62	47	45	49	48	52	52	61	59	69	67	71	69	82	78	76	72	83	78	77	72	17
18	66	63	63	63	47	45	48	47	52	52	61	60	66	65	74	71	84	79	77	73	83	78	74	72	18
19	65	64	63	62	45	44	47	47	54	52	61	60	65	64	75	72	84	80	78	74	82	78	73	70	19
20	65	63	62	62	44	43	47	45	54	54	61	60	66	64	77	73	84	80	79	74	82	77	73	71	20
21	65	64	62	62	44	43	46	45	56	54	59	58	66	64	77	73	80	77	80	75	80	76	74	70	21
22	65	64	63	62	43	42	45	45	57	56	60	58	66	63	76	73	78	75	80	75	79	75	74	72	22
23	66	64	63	62	41	40	45	45	61	57	62	57	68	63	76	73	77	75	82	76	77	75	73	72	23
24	66	65	62	61	40	40	45	45	61	59	62	59	69	65	76	74	77	74	82	77	76	74	74	72	24
25	68	66	61	60	42	41	46	45	60	59	64	60	69	66	76	74	79	74	83	77	76	74	73	71	25
26	68	67	61	59	42	42	45	45	59	57	64	59	69	66	77	74	79	75	83	77	74	73	74	72	26
27	68	67	59	57	42	42	45	45	62	59	63	60	66	63	77	75	82	77	80	77	76	72	74	72	27
28	67	66	57	56	42	42	45	44	61	60	64	59	66	64	77	74	81	78	80	78	78	74	76	72	28
29	68	67	56	55	43	42	45	44	-	-	63	60	66	65	75	74	81	78	81	78	75	71	77	74	29
30	69	66	57	55	43	43	45	44	-	-	65	61	68	65	75	73	81	77	80	78	72	70	76	74	30
31	69	66	-	-	44	43	46	45	-	-	65	61	-	-	74	72	-	-	81	77	72	70	-	-	31
AVG.	6	8	6	3	4	6	4	7	5	2	6	0	6	5	7	2	7	5	7	7	7	8	7	4	AVG.
MAX MIN	73	60	68	55	56	40	51	44	62	46	65	56	69	62	77	66	84	68	83	72	85	70	79	69	MAX MIN

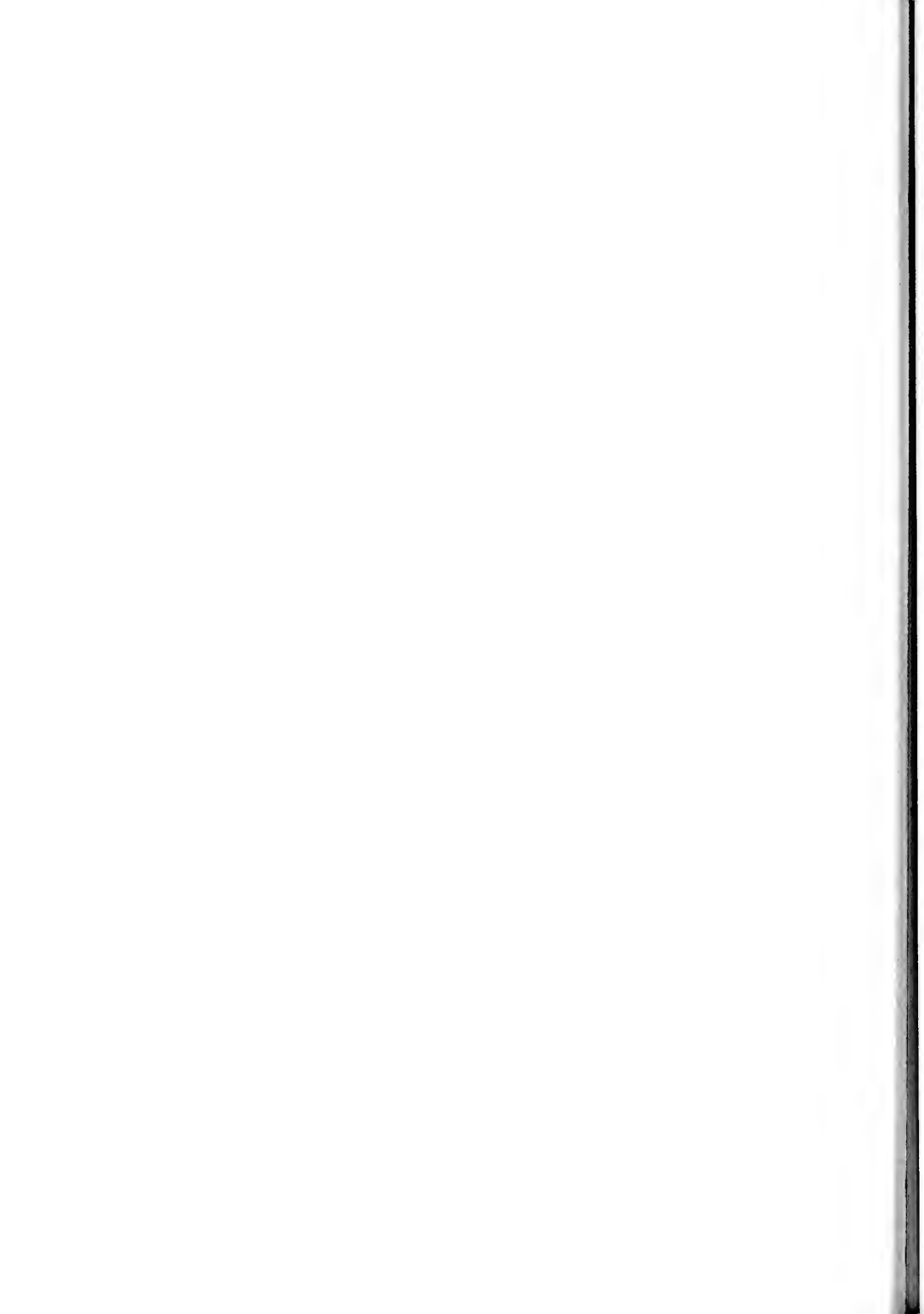
YEARLY EXTREMES

MAXIMUM			MINIMUM		
TEMPERATURE	MO	DAY	TEMPERATURE	MO	DAY
85	Aug.	4,5	40	Dec.	23,24

LOCATION			MAXIMUM		MINIMUM		PERIOD OF RECORD	
LATITUDE	LONGITUDE	1 4 SEC T & R 8 & M	TEMPERATURE OF RECORD		TEMPERATURE OF RECORD		FROM	TO
			DATE		DATE			
37 59 51	121 25 06	NW 27 2N SE	85	8-4,5-66	40	12-23,24-65	1-7-65	Present
Station located on Rindge Tract at Fourteen mile Slough near junction with Stockton Ship Channel, 8 mi. N.W. of Stockton								



APPENDIX E
GROUND WATER QUALITY



INTRODUCTION

This appendix presents ground water quality data collected during the period from October 1, 1965, through September 30, 1966. The data were collected from a number of major ground water sources in Northeastern California in cooperation with other state, local, and federal agencies. During the 1966 water year, 232 wells were sampled in 15 ground water basins and subbasins or subareas.

At the time of field sampling, pH and temperature measurements are normally made. Comments on current conditions are noted in field books which are available in the files of the Department of Water Resources.

Laboratory analyses of ground waters were performed in accordance with "Standard Methods for the Examination of Water and Waste Water", 12th Edition, American Public Health Association, New York, N. Y.

The Region and Basin and State Well Numbering Systems are described in Appendix C, "Ground Water Measurement".

INDEX OF MONITORED AREAS

CENTRAL VALLEY REGION (No. 5)

<u>Number</u>	<u>Basin</u>	<u>Page</u>
5- 1.00	Goose Lake Valley	128
5- 2.00	Alturas Basin	128
5- 4.00	Big Valley	129
5- 5.00	Fall River Valley	130
5- 6.00	Redding Basin	131
5- 7.00	Lake Almanor Valley	134
5- 9.00	Indian Valley	134
5-10.00	American Valley	135
5-11.00	Mohawk Valley	136
5-12.00	Sierra Valley	136
5-21.00	Sacramento Valley	
5-21.01	Tehama County.	138
5-21.02	Glenn County	140
5-21.04	Colusa County	142
5-21.05	Sutter County	143
5-21.08	Sacramento County	146
5-21.09	Yolo County	146
5-22.00	San Joaquin Valley	
5-22.01	San Joaquin County	146

LAHONTAN REGION (NO. 6)

6- 1.00	Surprise Valley	149
6- 2.00	Madeline Plains	150
6- 3.00	Willow Creek Valley	150
6- 4.00	Honey Lake Valley	151
6- 5.01	South Tahoe Valley	148
6- 5.02	North Tahoe Valley	153
6- 6.00	Carson Valley	154
6- 7.00	Topaz Valley	154
6- 8.00	Bridgeport Valley	155
6-67.00	Truckee Valley.	155

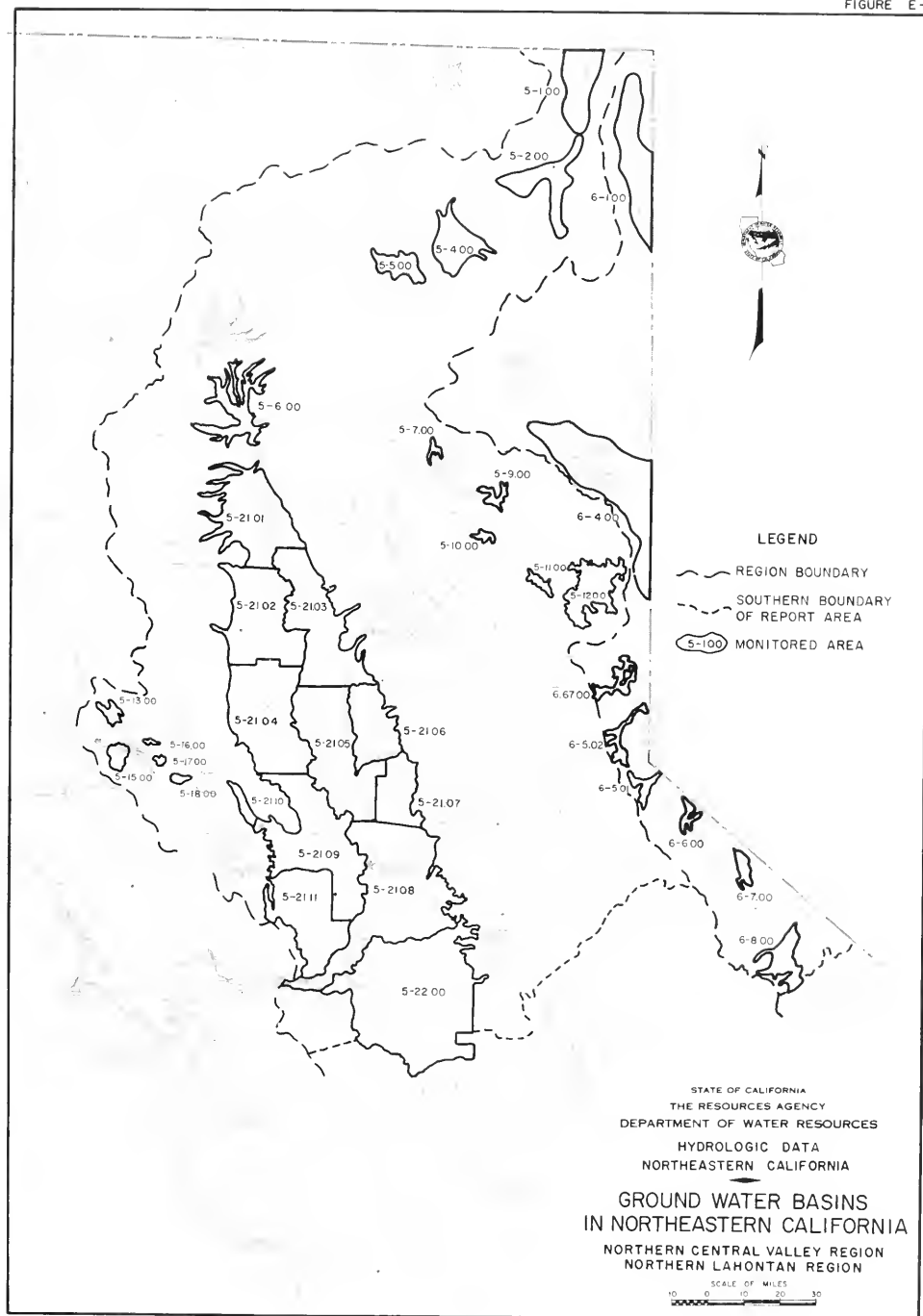


TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAH TIME SAMPLED	T-TEMP FIN	EC LAH FLD	MINERAL CONSTITUENTS IN			MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TDS SUM	TH NCH	
			CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	R			SiO2
ALTURAS BASIN																
5-2.00																
40N/12F-11F01 M 08/29/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		164														
40N/12F-25J01 M 08/29/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		413														
41N/11F-02J01 M 08/31/66 5050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		235														
41N/12F-15H01 M 09/21/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		220														
41N/13F-18P01 M 08/29/66 5050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8.1	991	116 5,79	50 4.11			0.0	274 4,49	306 6,36							498 274
42N/11F-19E01 M 09/20/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8.5	472	2.8 14	0.0	99 4.31	8.5 .22	9.7 .32	220 3.61	31 .64	7.1 .20	0.2	--	0.1	--	--	334 266
42N/11F-24A01 M 08/28/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		207														
42N/13F-31G01 M 08/29/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		553														
42N/13F-32G01 M 08/29/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		345														
BIG VALLEY																
5-4.00																
37N/07E-02D01 M 08/04/66 5050	6.1 F	197 242	12 60	5.6 46	20 87	4.9 .13	0.0	120 1.97	0.0 .07	2.4 3	0.5 .01	--	0.0	--	--	154 104
37N/07E-13H01 M 08/04/66 5050	5.4 F	-- 211	-- 29	-- 22	-- 42	-- 6	--	--	--	--	--	--	--	--	--	--

TABLE B 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER		DATE LAZ		TIME	SAMPLER	P4 LAZ FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TH NCH
DATE	LAZ	CA	MG				NA	K	CO3	HCO3	SO4	CL	N03	F	H	S102	TDS SUM		
BIG VALLEY																			
5-4.00																			
38N/07E-02P01 M	65 F	523	33	16	57	--	--	--	--	38	--	--	--	--	--	150			
08/04/66 5050		532	1.65	1.32	2.44					1.07						150			
38N/07E-23D01 M	61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/04/66 5050		280																	
38N/09E-17K01 M	62 F	210	14	9.7	14	--	--	--	--	2.8	--	--	--	--	--	45			
08/04/66 5050		233	.90	.80	.61					.08						45			
38N/09E-30H01 M	54 F	635	40	--	26	--	--	--	--	48	--	--	--	--	--	--			
08/04/66 5050		630	2.00		1.13					1.35									
38N/09E-21L01 M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/04/66		334																	
39N/07E-13H01 M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/04/66		218																	
39N/07E-14H01 M	54 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/04/66 5050		2504																	
39N/09E-28F01 M	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/04/66		189																	
FALL RIVER VALLEY																			
5-5.00																			
37N/05E-01C01 M	62 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/03/66 5050		204																	
37N/05E-14H01 M	61 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/03/66 5050		196																	
37N/05E-24F01 M	63 F	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
08/03/66 5050		199																	

TABLE B 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE SAMPLED TIME	T.M.P.	P.H.	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER				F	B	SIO2	LITER TDS SUM	TH NCH
			EC	LAH FLO	CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3						
FALL RIVER VALLEY																			
377/06F-19L01 M	6.4 F	--	206		21	5.5	10	--	--	--	--	--	1.9	--	--	--	--	--	75
08/03/66 5050			204		1.05	.45	.44						.05					--	75
377/06F-20H01 M	6.4 F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/03/66 5050			298															--	--
377/06F-20F01 M	6.4 F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/03/66 5050			151															--	--
REDDING BASIN																			
298/04M-12H01 M	--	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
07/26/66			194															--	--
298/04M-15L01 M	6.4 F	8.2	216		19	10	9.2	0.4	0.4	0.0	116	3.8	3.9	2.5	--	0.0	--	140	99
08/12/66 5050					.95	.82	.47	.01			1.90	.08	.11	.04				106	0
					44	38	14				89	4	5	2					
298/04M-15H02 M	6.4 F	7.4	413		24	21	21	0.9	0.9	0.0	145	17	27	24	--	0.0	--	255	156
08/12/66 5050					1.40	1.73	.91	.02			2.38	.35	.76	.39				210	37
					34	43	22				61	9	20	10					
298/04M-14H01 M	6.1 F	7.9	177		13	7.2	12	0.5	0.5	0.0	98	0.5	2.5	3.3	--	0.0	--	141	62
08/12/66 5050					.45	.59	.52	.01			1.61	.01	.07	.05				87	0
					37	33	29	1			93	1	4	3					
298/05M-07H02 M	6.4 F	8.3	362		21	27	10	0.6	0.6	0.0	168	12	5.9	24	--	0.0	--	248	144
08/12/66 5050					1.05	2.22	.44	.02			2.76	.25	.17	.39				183	76
					24	60	12	1			77	7	5	11					
298/05M-09H01 M	7.2 F	8.0	154		4.4	7.5	11	0.3	0.3	0.0	89	2.3	3.0	4.1	--	0.1	--	137	56
08/12/66 5050					.44	.62	.44	.01			1.46	.05	.08	.07				82	0
					31	39	30	1			88	3	5	4					
298/03M-14H01 M	6.4 F	--	--		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
08/26/66																		--	--

5-5.00

5-6.00

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER		DATE TIME	P.H. FID	EC LAH FID	MINERAL CONSTITUENTS IN					MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					
LA1 SAMPLE	CA				MG	NA	K	CO3	HC03	SO4	CL	NO3	F	B	S102	TDS SUM	NCH			
REDDING BASIN																				
30N/03--04M01 M		--	7.5	187	--	--	--	0.0	105	--	2.6	--	--	--	--	--	78			
08/26/66 5050																		--	--	--
30N/03--21A01 M		71	F	8.6	309	21	19	15	2.2	11	182	1.6	4.0	2.2	--	0.1	--			
08/29/66 5050																		32	47	20
30N/03--29K01 M		67	F	8.0	149	8.8	9.5	8.0	1.1	0.0	78	1.5	2.9	4.7	--	0.1	--			
08/29/66 5050																		29	46	23
30N/03--34M01 M		66	F	7.3	305	24	18	11	--	0.0	162	--	3.7	--	--	--	--			
07/26/66 5050																		310	1.20	1.52
30N/04--01E01 M		--	--	--	156	--	--	--	--	--	--	--	--	--	--	--	--			
07/26/66																		73	F	8.0
30N/04--02E01 M		08/19/66	5050	.30	.56	.48	.01	.01	.01	.01	.08	.08	.08	.10	.08	.08	.08			
08/19/66 5050																		22	41	36
30N/04--14K02 M		65	F	7.6	142	--	--	--	--	0.0	71	--	3.1	--	--	--	--			
08/19/66 5050																		--	--	--
30N/04--14K03 M		63	F	8.0	140	10	5.6	8.2	1.0	0.0	68	2.8	1.7	2.0	--	0.0	--			
08/19/66 5050																		.50	.46	.36
30N/04--16J01 M		37	34	27	2	2	2	2	2	2	89	5	4	2	--	--	--			
07/26/66 5050																		66	F	--
07/26/66 5050		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
30N/05--15K01 M																		--	--	--
07/26/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
30N/05--17K01 M																		--	--	--
07/26/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--			
30N/05--17K01 M																		--	7.3	140
08/22/66 5050		--	--	--	--	--	--	--	--	--	1.26	.13	--	--	--	--	--			

5-6.00

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLER	PH LAR FLD	EC LAR FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER					TDS SUM	TM NCH
			CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂				
			REDDING BASIN															
5-6.00																		
31N/03*-09G01 M 08/26/66 5050	65 F 7.7	227	28 1.40 63	1.4 .12 5	11 .44 22	8.6 .22 10	0.0	108 1.77 83	1.3 .03 1	.0 .25 12	5.3 .09 4	--	0.1	--	--	157 118	76 0	
31N/03*-12E01 M 07/26/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
31N/03*-20M01 M 08/26/66 5050	66 F 8.3	217	16 .80 34	11 .90 42	8.4 .34 13	1.8 .05 2	0.0	113 1.85 83	5.1 .11 5	4.7 .13 6	8.4 .14 6	--	0.1	--	--	195 111	95 0	
31N/04*-07A01 M 07/27/66 5050	48 F --	205	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
31N/04*-16J01 M 07/26/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
31N/05*-25K01 M 07/26/66 5050	66 F 7.3	261 271	9.5 .47	6.2 .51	44 1.91	--	0.0	118 1.94	--	26 .73	--	--	--	--	--	--	49 0	
32N/03*-17E02 M 07/26/66 5050	73 F 8.0	4020 3662	41 2.05 6	5.48 .68 1	794 34.54 93	3.9 .10	0.0	162 2.66 7	170 3.54 10	1090 30.74 83	2.4 .04	--	18.0	--	--	2060 2204	126 0	
32N/03*-20P01 M 07/26/66 5050	76 F 7.0	274 372	27 1.35 49	5.7 .47 17	21 .91 33	1.5 .04 1	0.0	129 2.12 74	17 .35 12	14 .39 14	0.0	--	0.4	--	--	162 150	91 0	
32N/03*-32J02 M 07/26/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
32N/03*-35C01 M 07/26/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
32N/03*-35C01 M 08/26/66 5050	--	7.7	208	--	--	--	0.0	122 2.00	--	.9 .11	--	--	--	--	--	--	72 0	
32N/04*-14F02 M 07/26/66 5050	64 F --	--	12 .60	--	21 .91	--	--	--	--	10 .28	--	--	--	--	--	--	--	

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAQ TIME SAMPLER	TEMP F	PH LAB FLO	EC LAB FLO	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN PERCENT REACTANCE VALUF								MILLIGRAMS PER LITER						
				CA	MG	NA	K	CO3	HC03	SO4	CL	NO3	F	H	SI02	TDS SUM		
REDDING BASIN																		
32N/04W-16H02 W 07/26/66 5050	76 F	--	127 140	--	--	--	--	--	--	--	--	--	--	0.3	--	--	--	--
32N/04W-34P01 W 07/27/66 5050	70 F	7.6	168 186	10 28	9.2 43	11 27	1.2 0.03	0.0 2	95 1.56	0.0 90	4.0 6	3.6 3	--	0.0	--	104 86	63 0	--
32N/05W-26M01 W 07/26/66	--	--	251	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
LAKE ALMANOR VALLEY																		
5 7.00																		
28N/07E-05L01 W 06/28/66	--	7.7	42	--	--	5.4 2.3	--	0.0 0.4	42 64	--	1.5 0.4	--	--	--	--	--	29 0	--
28N/07E-05M01 W 06/28/66	--	8.0	42	--	--	5.5 2.4	--	0.0 0.4	51 84	--	1.7 0.5	--	--	--	--	--	30 0	--
28N/07E-07A01 W 06/28/66	--	8.2	110	--	--	7.1 3.1	--	0.0 1.07	65 107	--	1.4 0.4	--	--	--	--	--	39 0	--
28N/07E-07H01 W 06/28/66	--	8.3	134	--	--	4.4 2.1	--	0.0 1.15	70 115	--	4.3 1.2	--	--	--	--	--	61 4	--
28N/07E-14H01 W 06/28/66	--	7.6	323	--	--	5.4 2.4	--	0.0 3.41	204 341	--	1.4 0.5	--	--	--	--	--	156 0	--
28N/07E-14U01 W 06/28/66	--	7.5	75	--	--	2.7 1.2	--	0.0 0.74	45 74	--	1.7 0.2	--	--	--	--	--	34 0	--
28N/07E-14M01 W 06/28/66	--	7.3	55	--	--	2.5 1.1	--	0.0 0.51	31 51	--	0.4 0.2	--	--	--	--	--	19 0	--

GENERAL ANALYSIS OF GROUND WATER

STATE WELL IDENTIFICATION DATE SAMPLED	TEMP	PH	MINERAL CONSTITUENTS IN MILLIGRAMS PER LITER				PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TDS SUM	TH NO
			CO ₂	Ca	Mg	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂		
INDIAN VALLEY																
26N/10T-08T-1 06/27/66	--	6.4	1.46	--	--	21	--	2.0	112	--	1.3	--	--	--	--	55
						.31		.07	1.09		.04					0
26N/10T-08T-1 06/27/66	--	6.4	4.04	--	--	57	--	3.0	118	--	70	--	--	--	--	98
						2.4		.10	1.94		1.97					0
26N/10T-10T-1 06/27/66	--	6.2	5.19	--	--	47	--	0.0	211	--	33	--	--	--	--	160
						2.02			3.46		.93					0
26N/10T-23T-1 06/27/66	--	7.4	1.45	--	--	4.4	--	0.0	111	--	1.2	--	--	--	--	90
						.21			1.02		.03					0
26N/10T-27T-1 06/27/66	--	7.4	1.33	--	--	4.4	--	0.0	55	--	1.3	--	--	--	--	40
						.21			.92		.04					0
AMERICAN VALLEY																
26N/09T-02T-1 06/26/66	--	6.3	1.23	--	--	27	--	0.0	116	--	4.4	--	--	--	--	48
						1.17			1.90		.10					0
26N/09T-13T-1 06/26/66	--	6.4	1.49	--	--	2.5	--	0.0	84	--	1.0	--	--	--	--	74
						.11			1.46		.03					1
26N/10T-08T-1 06/26/66	--	6.2	4.25	--	--	24	--	0.0	256	--	4.3	--	--	--	--	172
						1.02			4.20		.12					0
26N/10T-08T-1 06/26/66	--	7.6	2.74	--	--	4.7	--	0.0	174	--	1.9	--	--	--	--	132
						.32			2.05		.05					0
26N/10T-10T-1 06/26/66	--	8.0	1.34	--	--	2.5	--	0.0	53	--	1.2	--	--	--	--	47
						.11			.67		.03					4
26N/10T-14T-1 06/26/66	--	8.1	1.66	--	--	2.1	--	0.0	54	--	1.0	--	--	--	--	49
						.07			.95		.03					2

TABLE E 1

ATMOSPHERIC ANALYSIS OF GROUNDWATER

STATE WELL NUMBER DATE TIME	TEMP F	PC FLO	ANIONIC CONSTITUENTS IN			MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				TDS SUM	TH NCH	
			CA	Mg	NA	K	CO3	HCO3	SU4	CL	NO3	F	H			SI02
AMERICAN VALLEY																
24N/10E-19031	5	10.00	--	--	3.4	--	0.0	89	--	1.0	--	--	--	--	50	0
06/26/66	--	8.2	123	--	.15	--	1.13	.03	--	--	--	--	--	--	--	--
24N/10E-20031	--	7.5	50	--	2.5	--	0.0	22	--	2.0	--	--	--	--	22	4
06/26/66	--	7.5	50	--	.11	--	.36	.06	--	--	--	--	--	--	--	--
MOHAWK VALLEY																
22N/12E-09031	--	8.3	276	--	1.5	--	0.0	116	--	1.3	--	--	--	--	104	9
06/24/66	--	8.3	276	--	.65	--	1.90	.04	--	--	--	--	--	--	--	--
22N/13E-19031	--	8.5	246	--	2.6	--	4.0	145	--	1.8	--	--	--	--	88	0
06/24/66	--	8.5	246	--	.87	--	.13	2.21	--	.05	--	--	--	--	--	--
22N/13E-30031	--	7.7	393	--	4.9	--	0.0	105	--	21	--	--	--	--	80	0
06/24/66	--	7.7	393	--	2.13	--	1.74	.59	--	--	--	--	--	--	--	--
SIERRA VALLEY																
23N/14E-24032	--	8.4	430	--	21	--	4.0	154	--	10	--	--	--	--	171	30
06/25/66	--	8.4	430	--	.91	--	.30	2.53	--	.28	--	--	--	--	--	--
23N/14E-34032	--	8.2	819	--	13.7	--	0.0	97	--	125	--	--	--	--	68	0
06/25/66	--	8.2	819	--	6.05	--	1.54	.53	--	--	--	--	--	--	--	--
23N/15E-24032	--	7.3	317	--	12	--	0.0	195	--	2.4	--	--	--	--	132	0
06/25/66	--	7.3	317	--	.52	--	3.20	.07	--	--	--	--	--	--	--	--
23N/15E-35031	--	8.2	144	--	4.1	--	0.0	84	--	1.2	--	--	--	--	61	0
06/25/66	--	8.2	144	--	.14	--	1.34	.03	--	--	--	--	--	--	--	--
22N/15E-11031	--	8.5	546	--	11.4	--	1.3	225	--	35	--	--	--	--	36	0
06/25/66	--	8.5	546	--	5.13	--	.43	3.69	--	.99	--	--	--	--	--	--

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME	TYP	P.A. L.A.M. F.L.D.	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER EQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS SUM			
			CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	SI	OT
SIERRA VALLEY														
22N/15E-12K01 M 06/25/66	--	7.9	144	--	--	2.5	--	--	0.0	45	--	5.9	--	210
						15.03				.74		.11		
22N/15E-17C03 M 06/25/66	--	7.4	412	--	--	7.6	--	--	0.0	1.9	--	2.7	--	280
						3.41				2.94		.76		
22N/15E-26K02 M 06/24/66	--	8.4	2170	--	--	345	--	--	71	4.58	--	2.22	--	4350
						15.05			2.36	7.51		5.26		
22N/16E-05K02 M 06/24/66	--	8.6	201	--	--	2.7	--	--	1.9	4.0	--	2.1	--	230
						1.17			.63	1.45		.06		
22N/16E-14E01 M 06/24/66	--	8.3	228	--	--	2.2	--	--	0.0	1.24	--	4.4	--	640
						.97			2.10	.25		.25		
21N/14E-15J01 M 06/25/66	--	8.5	456	--	--	7.5	--	--	3.0	11.9	--	4.7	--	540
						3.25			.10	1.45		1.33		
21N/14E-24J01 M 06/25/66	--	8.5	240	--	--	8.4	--	--	2.0	14.3	--	1.3	--	1040
						.37			.07	2.35		.04		
21N/14E-36K01 M 06/24/66	--	7.5	202	--	--	1.1	--	--	0.0	1.22	--	2.2	--	410
						.44			2.90	.06		.06		
21N/15E-05J01 M 06/24/66	--	7.4	1440	--	--	2.66	--	--	0.0	1.67	--	2.66	--	640
						12.44			2.74	.25		1.56		
21N/15E-09J03 M 06/24/66	--	8.3	234	--	--	2.7	--	--	0.0	1.4	--	1.7	--	530
						1.17			2.03	.05		.05		
20N/14E-04G02 M 06/25/66	--	8.6	243	--	--	1.0	--	--	3.0	14.7	--	1.3	--	1080
						.44			.10	2.41		.04		

TABLE B 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE SAMPLED TIME	TYP E	P R E S S U R E F U T	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					
			Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI02	TDS SUM	TH NCH
5-21.01																
TEHAMA COUNTY																
23N/02*-05A01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		344														
23N/03*-22A01 M 08/15/66 5050	7.4	292	23 1.15 34	12 1.05 35	19 .83 27	--	--	0.0	144 2.36 79	7.9 .16 5	16 .45 15	--	--	--	--	110 149 0
23N/03*-35A01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		214														
24N/02*-30C01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		432														
24N/03*-03A01 M 08/15/66 5350	4.5	336	37 1.45 53	14 1.19 34	9.4 .43 12	--	--	0.0	163 2.67 80	22 .45 14	7.9 .22 7	--	--	--	--	152 171 19
24N/03*-04A01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		344														
24N/03*-14A01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		276														
24N/03*-20A01 M 08/15/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		140														

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NAME DATE TIME SAMPLED	TEHAMA COUNTY	PH	EC LAH FLD	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER				MILLIGRAMS PER LITER				TDS SUM	TH NCN
				CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SI0 ₂		
64 F	26N/05*-21L01 M 08/15/66 5050	7.6	416	26 130 32	11 .92 23	42 1.83 45	--	0.0	184	7.2	36	--	--	--	--	--	111
--	25N/02*-04W01 M 08/16/66	--	282	--	--	--	--	--	3.02	.15	1.02	--	--	--	--	--	213
--	25N/02*-07K01 M 08/16/66	--	569	--	--	--	--	--	72	4	24	--	--	--	--	--	--
--	25N/03*-03N01 M 08/16/66	--	390	--	--	--	--	--	--	--	--	--	--	--	--	--	--
76 F	25N/03*-31R01 M 08/15/66 5050	8.0	507	56 279 53	23 1.89 36	12 .52 17	0.7 .02	0.0	217	36	17	30	--	0.1	--	284	235
74 F	26N/03*-03N01 M 08/16/66 5050	7.5	331	30 1450 42	18 1.48 41	14 .61 17	0.8 .02	0.0	171	13	41	8.6	--	0.1	--	188	147
--	26N/03*-22G01 M 08/16/66	--	241	--	--	--	--	--	2.80	.27	.26	14	--	--	--	177	7
--	26N/04*-10D01 M 08/16/66	--	371	--	--	--	--	--	81	8	7	--	--	--	--	--	--
--	27N/03*-10D01 M 08/16/66	--	203	--	--	--	--	--	--	--	--	--	--	--	--	--	--
64 F	27N/03*-15C01 M 08/16/66 5050	7.4	293	27 1335 44	14 1.15 38	12 .52 17	1.7 .04	0.0	142	8.6	9.9	14	--	0.1	--	194	124
--	27N/03*-14W01 M 08/16/66	--	236	--	--	--	--	--	2.33	.14	.28	.23	--	--	--	157	8
--	27N/04*-01H02 M 08/16/66	--	260	--	--	--	--	--	77	4	9	--	--	--	--	--	--

5-21-01

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLER										GREEN COUNTY										5-21-02									
P.H. L.A.R F.L.D	T.E.M.P	F.C L.A.R F.L.D	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE										MILLIGRAMS PER LITER												
			CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SI02	TDS SUM	TH NCH													
--	--	7.9	713	37 1.85 24	37 3.04 39	67 2.91 37	1.6 .04 1	0.0 5.36 70	327 1.93 25	93 .28 4	10 6.8 1	6.8 .11	--	0.2	--	--	421 413	246 0											
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	7.7	946	46 2.30 24	41 3.37 35	92 4.00 41	0.7 .02	0.0 5.31 54	324 112 5	25 3.16 32	112 .79 8	49 .79	--	0.1	--	--	568 525	294 19											
--	--	--	325	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	8.0	818	62 3.09 35	50 4.11 46	37 1.61 14	1.1 .03	0.0 7.94 89	484 75 8	36 .23 3	8.2 .05 1	3.1 1	--	0.2	--	--	470 435	361 0											
--	--	7.9	503	25 1.25 23	27 2.22 41	45 1.96 36	1.0 .03 1	0.0 4.35 82	265 .62 12	30 .21 4	7.5 .10 2	6.4 .10	--	0.1	--	--	280 272	173 0											
--	--	--	591	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	--	400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	--	445	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	--	438	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											
--	--	8.0	358	31 1.55 42	18 1.48 40	15 .65 14	0.8 .02 1	0.0 3.05 83	186 .15 4	7.2 .17 5	7.2 .31 8	19 .31	--	0.1	--	--	209 188	153 1											
--	--	--	411	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--											

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLER GLENN COUNTY	PW LOG FID	TEMP FID	MINERAL CONSTITUENTS IN				MILLIEQUIVALENT PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				TDS SUM	TH NCH
			CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	R	S102		
21N/02A-15C01 A 07/04/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21N/03A-02C01 A 07/07/66 5050	8.0	533	50 2.50 43	25 2.06 37	22 .96 17	0.9 .02	0.0	24.0 3.94 73	16 .33 6	27 .76 14	22 .35 7	--	0.2	--	307 281	228 31
21N/03A-14C01 A 07/07/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
21N/03A-20C01 A 07/07/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/01A-29C01 A 07/07/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/02A-03C01 A 07/06/66 5050	8.3	601	51 2.54 43	26 2.14 36	24 1.22 21	0.8 .02	0.0	169 2.77 49	42 .87 15	39 1.10 19	57 .92 16	--	0.2	--	346 327	234 96
22N/02A-26C01 A 07/07/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/03A-04C01 A 07/06/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/03A-22C01 A 07/06/66 5050	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/03A-25C01 A 07/07/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
22N/04A-10C01 A 07/06/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

5-21.02

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE SAMPLED TIME	TEMP F/°	PH	MILLIGRAMS PER LITER MINERAL CONSTITUENTS IN										MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER TDS SUM				
			EC FLO	LAH FLO	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	B	SIO ₂	TDS	LAH	NO ₃	NO ₃	NO ₃	NO ₃
13N/01W-20H02 M 09/27/66	--	--	423	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
13N/01W-36H02 M 09/27/66 5050	--	8.0	463	27	18	40	1.1	0.0	199	7.4	37	3.2	3.2	--	0.1	--	254	143	0	231	0	0
13N/02W-13H01 M 09/27/66 5050	--	7.0	902	42	46	44	1.4	0.0	318	12	112	19	.29	--	0.3	--	492	345	44	457	44	44
13N/02W-15H01 M 09/27/66 5050	--	7.1	645	23	18	77	0.6	0.0	206	0.3	80	13	.21	--	1.3	--	346	133	0	314	0	0
13N/02W-24L01 M 09/27/66 5050	--	7.0	678	2435	2.88	1.52	0.4	0.0	278	4.4	60	19	.31	--	0.2	--	377	260	32	338	32	32
13N/02W-29H01 M 09/27/66 5050	--	7.7	1150	40	41	124	1.4	0.0	228	30	219	1.9	.03	--	2.2	--	639	271	44	571	44	44
14N/01W-02D01 M 09/27/66 5050	--	8.3	1585	3419	4.85	7.44	0.0	0.0	287	154	263	1.2	.02	--	0.2	--	887	403	168	853	168	168
16N/01W-29J01 M 09/27/66	--	--	390	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16N/02W-04H01 M 09/27/66	--	--	611	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
16N/02W-25H02 M 09/27/66 5050	--	8.2	747	17	10	130	0.1	0.0	341	40	21	0.5	.01	--	0.2	--	445	45	0	426	0	0
17N/01W-06H01 M 09/27/66 5050	--	8.0	347	26	12	22	1.7	0.0	198	2.1	4.6	0.0	0.0	--	0.1	--	179	115	0	177	0	0
18N/02W-01E01 M 08/11/66 5050	--	7.4	858	54	40	64	4.3	0.0	463	46	27	3.7	.06	--	0.2	--	486	311	0	474	0	0

5-21.04

COLUSA COUNTY

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NAME- DATE LA- TIME SAMPLER	TEMP FLO	PH LAH FLO	EC LAH FLO	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SU4	CL	NO3	F	R	S102	TDS SUM
5-21.04																
COLUSA COUNTY																
13N/02A-22601 M 09/27/66	--	8.5	H94	--	--	6.2	--	--	--	9.5	144	--	--	0.6	--	336
						2.70				.20	4.06					346
14N/01A-12401 M 09/27/66	--	8.7	610	--	--	11.4	--	13	247	4.8	53	--	--	--	--	--
						4.96		.43	4.05	.10	1.49					
15N/02A-32901 M 09/27/66	--	8.5	728	--	--	6.2	--	11	316	4.3	34	--	--	--	--	260
						2.70		.37	5.18	.89	.96					0
15N/04A-25901 M 09/27/66	--	8.0	1040	--	--	13.2	--	--	--	96	101	--	--	0.4	--	263
						6.05				2.00	2.85					253
16N/02A-35401 M 09/27/66	--	--	684	--	--	--	--	--	--	--	--	--	--	--	--	--
16N/03A-09001 M 09/27/66	--	8.2	625	--	--	60	--	--	--	--	63	--	--	--	--	206
						2.61					1.78					206
17N/02A-12001 M 09/27/66	--	8.3	491	--	--	--	--	0.0	262	--	--	--	--	--	--	142
									4.30							0
5 21.05																
SUTTER COUNTY																
16N/03E-04601 A 06/04/66	--	8.4	274	--	--	1.4	--	0.0	124	--	1.4	--	--	--	--	113
						.61			2.12		.04					7
15N/01E-16001 06/04/66	--	8.4	542	--	--	2.5	--	31	242	--	2.4	--	--	--	--	293
						1.04		1.04	4.74		.04					2

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

5 21.05														
SUTTER COUNTY														
STATE WELL IDENTIFICATION	DATE TESTED	TIME	TEMP	CAT	PH	NA	K	CO3	HCO3	SO4	CL	F	Br	MILLIGRAMS PER LITER
15N/01E-152	06/13/66		--	--	--	1.5	--	--	18	311	--	45	--	--
						0.65			0.80	5.10		1.27		328 43
15N/01E-26112	06/02/66		--	--	--	5.4	--	--	31	292	--	4.5	--	--
						2.35			1.03	4.79		1.6		195 0
15N/03E-040	06/09/66		--	--	--	2.4	--	--	17	297	--	26	--	--
						1.25			5.7	4.71		7.3		348 84
15N/03E-23C01	06/17/66		--	--	--	5.4	--	--	0.0	102	--	2.6	--	--
						0.25			--	1.67		0.7		81 0
14N/01E-01411	06/13/66		--	--	--	2.7	--	--	0.0	363	--	15	--	--
						1.17			--	5.95		0.42		281 0
14N/01E-24N01	06/13/66		--	--	--	4.2	--	--	28	273	--	4.0	--	--
						1.03			0.3	4.44		0.25		228 0
14N/03E-03C02	06/10/66		--	--	--	5.4	--	--	13	204	--	128	--	--
						2.57			0.3	3.43		3.51		316 123
14N/03E-05403	06/10/66		--	--	--	6.0	--	--	13	225	--	41	--	--
						2.61			0.3	3.69		2.57		333 127
14N/03E-14E02	06/10/66		--	--	--	7.4	--	--	4.0	154	--	2.5	--	--
						3.2			0.30	2.53		0.7		139 0
14N/03E-15N01	06/10/66		--	--	--	5.4	--	--	26	243	--	96	--	--
						2.52			0.7	4.54		2.71		375 100
14N/03E-15N02	06/10/66		--	--	--	5.4	--	--	4.0	147	--	276	--	--
						2.74			0.3	2.41		7.74		480 353
13N/03E-10402	05/19/66		--	--	--	4.4	--	--	13	364	--	66	--	--
						1.67			0.3	6.30		1.86		310 0

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLE	TEMP LAT LONG	PC FLD	MINERAL CONSTITUENTS IN			MILLIGRAMS PER LITER PERCENT REAGENTS VALUE				MILLIGRAMS PER LITER				
			CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	F	M	SI02	TDS SUM
SUTTER COUNTY														
14N/03E-24001 M 05/19/66 5:00	--	6.3	1400	--	--	6.4	--	0.0	3.7	--	400	--	--	515
						2.74			6.21		6.45			190
12N/02E-04812 M 06/13/66	--	6.4	667	--	--	121	--	1.6	2.34	--	66	--	--	77
						5.26		.53	3.42		1.66			0
12N/02E-11N01 M 06/13/66	--	6.3	1330	--	--	226	--	2.2	2.7	--	243	--	--	119
						9.44		.73	3.72		7.94			0
12N/02E-14N01 M 06/13/66	--	6.5	400	--	--	572	--	9.0	1.4	--	1320	--	--	800
						24.44		.30	2.44		37.22			639
12N/02E-16N01 M 06/13/66	--	9.0	1050	--	--	184	--	3.5	3.75	--	119	--	--	143
						7.96		1.17	6.15		3.36			0
12N/02E-23N01 M 06/13/66	--	6.7	982	--	--	171	--	2.2	2.30	--	177	--	--	103
						7.74		.73	3.77		4.99			0
12N/02E-26N01 M 06/13/66	--	6.6	1120	--	--	141	--	1.4	2.53	--	210	--	--	105
						4.31		.60	4.15		7.92			0
12N/03E-26N01 M 06/17/66	--	6.2	886	--	--	72	--	1.4	1.4	--	164	--	--	253
						3.14		.50	2.45		4.62			81
11N/03E-24001 M 06/19/66	--	6.4	503	--	--	54	--	2.4	2.7	--	10	--	--	135
						2.36		.40	4.21		.24			0
11N/04E-09001 M 05/17/66 5:00	--	6.3	345	--	--	16	--	0.0	2.10	--	16	--	--	148
						.76			3.44		.45			0
11N/04E-23N01 M 05/17/66 5:00	--	6.2	305	--	--	24	--	0.0	1.50	--	19	--	--	95
						1.04			2.46		.54			0
11N/04E-25N01 M 05/17/66 5:00	--	6.3	345	--	--	24	--	0.0	1.56	--	14	--	--	107
						1.04			2.72		.51			0

TABLE E 1

TYPICAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME	LAT LONG	PC LAT LONG	ANALYTICAL CONSTITUENTS IN PERCENT REAGENTS VALUE				MILLIGRAMS PER LITER PERCENT REAGENTS VALUE				MILLIGRAMS PER LITER TDS TH			
			Ca	Mg	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂	SUM
SUTTER COUNTY														
5 21.05	--	242	--	--	30 1.31	--	0.0	142	--	21	--	--	--	79 0
11N/04F-35J01 W 05/17/66 5100 1140	--	321	--	--	33 1.44	--	12	138 4.0	24 2.26	24 68	--	--	--	88 0
SACRAMENTO COUNTY														
5 21.08	--	210	13	11	4.4 4.3	1.7 4.4	0.0	111	0.3	12	1.6 4.3	--	0.0	166 106
69N/05F-21F 03/23/66 5100 1200	--	210	13	11	4.4 4.3	1.7 4.4	0.0	111	0.3	12	1.6 4.3	--	0.0	166 106
YOLO COUNTY														
5 21.09	--	133	86	2.3	4.7 4.2	2.4 4.6	0.0	438 7.18	103 2.35	157 4.43	3.6 1.06	--	1.4	877 680
11N/02F-14F 1 03/15/66 5100 1200	--	644	47	37	47 4.2	2.6 3.9	0.0	297 4.47	25 6.6	58 2.3	6.2 1.0	--	1.9	381 371
10N/01F-21F 1 03/15/66 5100 1015	--	447	17	27	44 4.5	2.6 2.2	4.0	230 3.77	31 6.4	20 4.56	2.7 1.4	--	0.7	296 262
04N/04F-20F 1 03/15/66 5100 1015	--	447	17	27	44 4.5	2.6 2.2	4.0	230 3.77	31 6.4	20 4.56	2.7 1.4	--	0.7	296 262
SAN JOAQUIN VALLEY														
5 22.00	--	1140	34	22	172 1.47	6.4 4.6	5.0	301 4.94	3.5 4.7	214 5.03	1.3 1.2	--	1.1	631 608
5 22.01	--	1140	63	40	100 3.22	1.6 4.2	0.0	255 3.45	0.0 3.4	259 7.30	1.0 1.2	--	0.5	770 583
04N/05F-36J 1 05/25/66 5100 1400	--	540	310	213	455 15.47	3.0 1.7	0.0	344 6.30	0.0 1.2	0.8 4.58	0.1 1.1	--	0.8	4190 2791
04N/05F-04F 1 05/25/66 5100 1400	--	540	310	213	455 15.47	3.0 1.7	0.0	344 6.30	0.0 1.2	0.8 4.58	0.1 1.1	--	0.8	4190 2791

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLE	TEMP	PC L44 F40	CA	MG	NA	K	MILLIGRAMS PER LITER PERCENT REACTIVE VALUE				MILLIGRAMS PER LITER TDS						
SAN JOAQUIN COUNTY																	
04N/05-11N11 4 05/25/66 5000 1300	--	4.3	302	26	10	29	1.1	0.0	1.0	1.0	0.4	4.6	--	0.1	--	192	108
			1.30	42	1.14	0.3		2.45	0.4	1.4	0.0	0.0				163	0
04N/05-17N02 0 05/25/66 5000 1330	--	4.2	604	27	17	84	1.5	0.0	2.0	0.3	101	1.4	--	0.2	--	342	143
			1.45	1.40	3.45	0.4		3.77	0.1	2.85	0.2	0.0				347	0
04N/05-20N03 0 05/25/66 5000 1200	--	4.4	403	59	29	100	1.2	0.0	4.52	2.3	42	4.0	--	0.1	--	630	266
			2.94	2.36	4.61	0.3		4.20	1.41	4.4	0.4	0.0				528	0
04N/05-22N01 4 05/25/66 5000 1130	--	4.2	605	53	23	47	0.7	0.0	2.11	0.4	104	1.4	--	0.1	--	453	227
			2.84	1.24	2.04	0.2		3.46	0.1	3.07	0.2	0.0				346	54
01N/06-16N 10/08/65 5000 1430	--	4.3	4700	192	70	431	0.5	0.0	1.25	0.0	1130	0.0	--	0.0	--	2270	767
			4.54	5.75	14.75	1.7		2.05	0.0	31.47	0.4	0.0				1491	665
01N/06-16N 10/04/65 5000 1445	--	4.3	3540	194	62	375	0.4	0.0	1.42	0.0	1021	0.2	--	0.4	--	2410	738
			4.64	5.10	14.45	1.4		2.33	0.0	25.74	0.4	0.0				1729	622
01S/04-130 10/04/65 5000 1045	--	4.6	470	68	34	105	2.4	2.4	5.73	2.0	14	1.4	--	0.2	--	547	345
			2.40	4.44	4.70	0.7		4.40	0.0	0.0	0.3	0.3				570	0
01S/05-27N 10/04/65 5000 1130	--	4.3	650	54	24	43	2.0	0.0	2.56	1.7	15	0.4	--	0.0	--	368	249
			2.40	2.30	1.64	0.5		4.20	0.1	2.12	0.1	0.0				340	39
01S/06-09N11 6 10/04/65 5000 1300	--	4.4	654	12	2.2	1.7	1.2	4.0	2.04	3.5	16	0.0	--	0.1	--	392	39
			4.6	4.0	3.7	0.3		3.13	4.44	0.3	0.0	0.0				360	0
01S/06-11C01 8 12/07/65 5000 1400	--	4.5	5020	313	54	362	4.5	0.0	4.0	0.0	1100	1.1	--	0.3	--	2480	994
			15.12	4.77	14.00	2.4		1.41	0.0	31.24	0.2	0.0				1933	929
01S/06-12N11 1 10/04/65 5000 1400	--	4.4	754	47	15	34	0.0	1.4	3.23	3.0	34	0.0	--	0.2	--	470	205
			2.44	1.43	3.44	1.3		4.7	5.30	0.0	1.07	0.4				441	0
02S/04-30N01 8 06/02/66 5000	--	4.4	1210	74	17	154	4.3	0.0	1.70	2.0	122	4.1	--	0.4	--	754	246
			4.64	1.23	2.7	1.1		2.74	3.37	0.4	0.3	0.0				721	107

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL IDENTIFICATION	DATE	TIME	SAMPLE	PC LAB FID	CA	MG	NA	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	H	S102	TDS SUM	TH NCH	
SAN JOAQUIN COUNTY																			
025/064-30MAL 14	--	5 22.01	1500	4.4	65	9.2	1.4	5.0	0.0	1.7	200	104	4.5	--	0.5	--	619	200	
				3.24	.76	5.57	.13	2.57	4.15	3.05	.07							597	72
				33	4	57	1	26	42	31	1								
035/064-05E	--	5 22.01	1030	4.4	101	11	136	3.0	0.0	1.55	230	159	19	--	0.7	--	781	299	
				5.04	.40	5.92	.08	2.54	4.74	4.44	.31							736	172
				42	6	50	1	21	34	37	3								
LAHONTAN REGION																			
6 0.00																			
SOUTH TAHOE VALLEY																			
12N/18E-03401 14	--	6 5.01	06/22/66	4.1	121	--	--	6.4	--	64	--	4.6	--	--	--	--	--	45	
								.30		1.05		.13							0
12N/18E-03C-1 14	--	6 5.01	06/22/66	7.7	71	--	--	4.4	--	40	--	1.2	--	--	--	--	26		
								.21		.66		.03						0	
12N/18E-03F-1 14	--	6 5.01	06/22/66	4.1	46	--	--	5.4	--	54	--	1.3	--	--	--	--	36		
								.24		.44		.04						0	
12N/14E-03J-1 14	--	6 5.01	06/22/66	4.0	76	--	--	5.3	--	45	--	0.9	--	--	--	--	28		
								.24		.74		.03						0	
12N/14E-05L-1 14	--	6 5.01	06/22/66	4.0	104	--	--	6.4	--	59	--	1.2	--	--	--	--	40		
								.27		.37		.03						0	
12N/14E-05P-1 14	--	6 5.01	06/22/66	4.9	80	--	--	5.0	--	47	--	1.0	--	--	--	--	26		
								.24		.77		.03						0	
12N/18E-04L-1 14	--	6 5.01	06/22/66	7.7	45	--	--	8.1	--	46	--	1.5	--	--	--	--	24		
								.35		.75		.04							

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME	TEMP F/D	PH L/M F/D	MINERAL CONSTITUENTS IN							MILLIGRAMS PER LITER							MILLIGRAMS PER LITER						
			Ca	Mg	Na	K	CO ₂	HCO ₃	SO ₄	CL	NO ₃	F	H	SiO ₂	TOC	TM							
SURPRISE VALLEY																							
39N/17E-05001 M 08/30/66 5050	--	7.8	344	8.1	3.0	62	2.1	0.0	84	73	17	0.4	--	0.0	--	274	35						
				.40	.30	2.70	.05		1.38	1.52	.48	.01				208	0						
				12	9	74	1		41	45	14												
40N/16E-11601 M 08/30/66 5050	--	7.4	210	24	5.4	13	1.3	0.0	130	3.1	0.8	1.9	--	0.1	--	135	42						
				1.20	.44	.57	.03		2.13	.06	.02	.03				113	0						
				54	20	25	1		95	3	1	1											
40N/16E-13201 M 08/30/66	--	--	217	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
40N/16E-36F01 M 08/30/66	--	--	317	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
41N/16E-25C02 M 08/30/66 5050	--	8.4	227	5.4	1.1	43	0.4	2.0	90	23	5.7	0.2	--	0.3	--	152	18						
				.27	.07	1.87	.01	.07	1.48	.44	.16					125	0						
				12	4	83		3	88	22	7												
41N/16E-35D02 M 08/30/66 5050	--	8.0	138	16	3.0	6.2	0.6	0.0	84	2.0	0.8	0.6	--	0.1	--	92	55						
				.40	.30	.27	.02		1.38	.04	.02	.01				71	0						
				54	22	13	1		95	3	1	1											
42N/16E-06202 M 08/30/66 5050	--	8.3	258	31	8.1	12	0.8	0.0	148	9.5	1.7	0.9	--	0.0	--	158	111						
				1.55	.67	.52	.02		2.43	.20	.05	.01				137	0						
				56	24	19	1		90	7	2												
42N/16E-21L01 M 08/30/66	--	--	227	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
42N/16E-34F01 M 08/30/66	--	--	331	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
43N/16E-20H01 M 08/30/66	--	--	259	--	--	--	--	--	--	--	--	--	--	--	--	--	--						
43N/16E-33H02 M 08/30/66 5050	--	8.2	423	46	11	24	0.6	0.0	232	9.0	4.3	24	--	0.0	--	243	160						
				2.30	.90	1.22	.02		3.80	.19	.12	.39				237	0						
				52	20	27			84	4	3	9											
44N/16E-06E02 M 08/30/66 5050	--	8.3	672	3.4	0.9	146	0.3	0.0	272	1.5	73	1.3	--	5.5	--	450	11						
				.17	.05	6.35	.01		4.46	.03	2.06	.02				365	0						
				3	1	97			68		31												

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAST SAMPLED	TIME	P4 LAB FID	EC LAB FID	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	B	SI02	TOS SUM	TH NCH
SURPRISE VALLEY																	
46N/16E-29N01 08/30/66 5050	--	8.1	311	0.4 0.4 1	1.7 1.4 4	7.3 3.1 94	1.3 0.3 1	0.0 0.0 --	193 3.17 95	2.8 0.6 2	0.9 0.3 1	4.8 0.8 2	--	0.2	--	241 180	9 0
46N/16E-17N01 08/30/66 5050	--	--	279	--	--	--	--	--	--	--	--	1.0 .02	--	--	--	--	--
46N/16E-19N01 08/30/66 5050	--	--	294	--	--	--	--	--	--	--	--	--	--	0.2	--	--	--
46N/16E-13C01 08/30/66 5050	--	8.3	506	38 1.90 37	15 1.23 24	45 1.96 34	2.5 .06 1	0.0 0.0 --	277 4.54 85	23 .43 9	10 .28 5	0.6 .01	--	0.4	--	303 270	156 0
46N/16E-14N01 08/30/66 5050	--	8.3	251	22 1.10 44	6.6 .54 22	1.4 .74 31	3.7 .09 4	0.0 0.0 --	118 1.94 76	16 .33 13	9.2 .26 10	1.1 .02 1	--	0.1	--	182 135	82 0
46N/16E-29E01 08/30/66	--	--	518	--	--	--	--	--	--	--	--	--	--	0.7	--	--	--
MADRLINE PLAINS																	
46N/14E-23F01 08/22/66	--	--	265	--	--	--	--	--	--	--	--	--	--	--	--	--	--
46N/14E-15N01 08/22/66 5050	--	7.3	253	20 1.00 34	12 .99 36	12 .52 20	4.6 .12 5	0.0 0.0 --	132 2.16 92	0.5 .01	3.7 .10 4	4.7 .08 3	--	0.1	--	156 122	100 0
46N/16E-19F01 08/22/66 5050	--	--	342	--	--	--	--	--	--	--	--	--	--	--	--	--	--
WILLOW CREEK VALLEY																	
31N/12E-13N01 08/23/66	--	--	202	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31N/12E-25N01 08/23/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE TIME SAMPLER	TEMP F/D	pH F/D	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER					
			Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	NO ₃	F	M	S102	TDS SUM	TH NCH
HONEY LAKE VALLEY																
22N/17E-04A01 M 07/05/66 5050	59 F	7.4	24	7.5	22	--	0.0	162	--	5.8	--	--	--	--	--	96
			243	1.30	.62	.96		2.66		.16						0
25N/17E-21A03 M 08/24/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
26N/15E-03E01 M 08/24/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			217													
26N/16E-15E01 M 08/24/66 5050	--	6.2	34	10	60	1.5	0.0	204	73	20	4.1	--	0.3	--	317	136
			1.90	.82	2.61	.04	3.35	1.52	.56	.07					307	0
			35	15	43	1	61	28	10	1						
27N/14E-16C01 M 08/24/66 5050	--	7.6	47	4.5	12	4.0	0.0	162	5.3	14	16	--	0.0	--	226	152
			2.35	.70	.52	.10	2.66	.11	.39	.26					186	19
			64	19	14	3	78	3	11	8						
27N/14E-26E01 M 08/24/66	--	--	--	--	--	--	--	--	--	--	14	--	0.3	--	--	--
			194									.23				
28N/13E-09E01 M 08/23/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			217													
28N/14E-02E01 M 08/23/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			1219													
28N/14E-17A01 M 08/23/66 5050	--	6.0	41	13	54	1.3	0.0	299	12	2.7	11	--	0.1	--	310	157
			2.05	1.07	2.33	.03	4.90	.25	.19	.18					286	0
			37	19	43	1	89	5	3	3						
28N/17E-18A01 M 08/24/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			266													
28N/17E-20J01 M 08/24/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			273													
28N/12E-04A01 M 08/24/66	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
			720													

G-1.00

TABLE E 1

MINERAL ANALYSIS OF GROUND WATER

STATE WELL NUMBER DATE LAB TIME SAMPLER	HONEY LAKE VALLEY	TEMP F/D	PH L/H F/D	MINERAL CONSTITUENTS IN				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE					MILLIGRAMS PER LITER				
				CA	MG	NA	K	CO3	HCO3	SO4	CL	NO3	F	H	SI02	TDS SUM	
29N/12E-15A01 M 08/24/66		--	7.4	30 1.50	2.9 .24	14 .61	--	0.0 2.02	123	--	3.8 .11	--	--	--	--	--	87 0
29N/13E-01N01 M 08/23/66		--	--	--	--	--	--	--	--	--	--	--	0.5	0.7	--	--	--
29N/13E-06K01 M 08/25/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29N/13E-14G01 M 08/23/66		--	--	--	--	--	--	--	--	--	--	72 1.16	--	--	--	--	--
29N/14E-04N01 M 08/23/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29N/14E-10E01 M 08/23/66 5050		--	7.9	14 .90 1.0	5.6 .46 5	170 7.40 84	2.4 .06 1	0.0 4.48 52	273 3.35 39	161 8.34 39	25 .71 8	6.9 .11 1	--	0.4	--	597 523	68 0
29N/14E-18R01 M 08/23/66		--	--	--	--	--	--	--	--	--	--	--	--	1.1	--	--	--
29N/14E-19A02 M 08/23/66 5050		--	8.6	26 1.30 7	11 .90 5	404 17.75 89	0.2 .01 3	18 .60 3	445 7.30 37	430 8.34 46	40 1.13 6	102 1.54 8	--	2.0	--	1280 1255	112 0
29N/15E-21N01 M 08/24/66		--	--	--	--	--	--	--	--	--	--	23 .37	0.4	0.4	--	--	--
29N/15E-30A02 M 08/24/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
29N/16E-30L01 M 08/24/66		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
30N/12E-33N02 M 08/25/66 5050		--	8.3	17 .85 45	8.4 .69 37	6.6 .29 15	2.0 .05 3	0.0 1.85 98	113 1.85 98	0.0 0.0 0.0	1.2 .03 2	0.0	--	0.1	--	96 91	77 0

TABLE E 1

ATMOSPHERIC ANALYSIS OF GROUND WATER

STAFF WELL NUMBER DATE TIME	LAT LONG	ELEV FT	PC TUB	ANAL CONSTITUENTS IN								MILLIGRAMS PER LITER								MILLIGRAMS PER LITER			
				CA	Mg	Na	K	PERCENT REAGENTS				PERCENT REAGENTS				F	H	SI02	TDS	TH			
								CO3	HCO3	SO4	CL	CO3	HCO3	SO4	CL								
NORTH TAHOE VALLEY																							
166/16E-24E-11 06/23/66	--	4.5	242	--	--	5.5	--	0.0	0.0	--	2.2	--	--	--	--	--	--	--	90	90			
						4.7					.06												
166/16E-32E-11 06/23/66	--	6.2	204	--	--	5.5	--	0.0	76	--	4.7	--	--	--	--	--	--	--	90	28			
						2.5			1.25		.10												
166/16E-32E-12 06/23/66	--	7.1	110	--	--	3.5	--	0.0	45	--	1.0	--	--	--	--	--	--	--	50	13			
						1.5			.74		.03												
166/17E-13E-11 06/23/66	--	7.1	114	--	--	3.7	--	0.0	64	--	1.6	--	--	--	--	--	--	--	51	0			
						1.5			1.05		.05												
166/17E-14E-11 06/23/66	--	6.2	265	--	--	11	--	0.0	147	--	5.5	--	--	--	--	--	--	--	109	0			
						4.4			2.41		.14												
166/17E-14C-11 06/23/66	--	6.4	274	--	--	11	--	4.0	164	--	5.6	--	--	--	--	--	--	--	123	0			
						4.4		.13	2.69		.16												
166/16E-24E-11 06/23/66	--	6.2	164	--	--	4.1	--	0.0	95	--	2.7	--	--	--	--	--	--	--	75	0			
						1.5			1.55		.04												
166/17E-07E-11 06/23/66	--	7.5	114	--	--	5.5	--	0.0	46	--	2.7	--	--	--	--	--	--	--	46	9			
						2.5			.75		.25												
166/16E-01C-11 06/23/66	--	7.5	41	--	--	2.5	--	0.0	25	--	0.9	--	--	--	--	--	--	--	16	0			
						1.1			.41		.03												
166/16E-01E-11 06/23/66	--	7.1	42	--	--	2.1	--	0.0	29	--	0.0	--	--	--	--	--	--	--	20	0			
						1.04			.45														

TABLE E 1

ANALYTICAL ANALYSIS OF GROUND WATER

STATION NAME DATE TIME	TEMP F	PH L/M F/L	EC L/M F/L	MINERAL CONSTITUENTS IN			MILLIGRAMS PER LITER PERCENT REACTION VALUE				MILLIGRAMS PER LITER					
				CA	MG	NA	K	CO ₃	HCO ₃	SIO ₂	CL	NO ₃	F	4	SIO ₂	TDS SUM
CARSON VALLEY																
11N/19C-35012	66	7.0	121	--	--	8.4	--	0.0	64	--	1.0	--	--	--	--	41
06/21/66						37			1.05		.03					0
11N/19C-35011	66	6.4	96	--	--	6.1	--	0.0	56	--	1.9	--	--	--	--	37
06/21/66						27			.47		.03					0
11N/20C-07011	66	8.0	150	--	--	7.4	--	0.0	49	--	4.7	--	--	--	--	53
06/21/66						32			.80		.13					13
TOPAZ VALLEY																
09N/22C-24011	66	8.2	144	--	--	14	--	0.0	107	--	3.0	--	--	--	--	51
06/21/66						61			1.75		.06					0
09N/22C-24011	66	8.3	224	--	--	17	--	0.0	114	--	4.7	--	--	--	--	75
06/26/66						74			1.87		.10					0
09N/23C-20011	66	8.3	245	--	--	17	--	0.0	160	--	2.1	--	--	--	--	122
06/21/66						74			2.45		.05					0
09N/23C-30012	66	8.3	334	--	--	54	--	0.0	90	--	34	--	--	--	--	45
06/21/66						31			1.44		1.07					0
09N/23C-16011	66	8.5	253	--	--	24	--	4.0	134	--	5.3	--	--	--	--	84
06/21/66						104		.13	2.26		.09					0
09N/23C-24013	66	8.2	295	--	--	34	--	0.0	73	--	15	--	--	--	--	56
06/21/66						105			1.24		.42					0
09N/23C-24012	66	8.0	122	--	--	47	--	0.0	54	--	1.4	--	--	--	--	45
06/21/66						34			1.05		.05					0

TABLE E 1

ANALYSIS OF GROUND WATER

STATION NAME DATE TIME	TEMP F	TEMP C	PERCENT CONSTITUENTS IN TOTAL SOLIDS				MILLIGRAMS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER TDS			
			Ca	Mg	Na	K	CO ₃	HCO ₃	SO ₄	CL	F	H	SiO ₂	SUM
BRIDGEPORT VALLEY														
6 8.00	--	52.1	--	--	0.2	--	0.0	71	--	1.4	--	--	--	52
					0.2			1.1		0.7				0
	--	52.7	--	--	3.4	--	1.6	2.3	--	1.7	--	--	--	175
					1.6		1.3	1.4		1.9				0
	--	52.5	--	--	2.4	--	4.0	1.3	--	1.2	--	--	--	85
					1.0		1.1	2.2		1.2				0
6 67.00	--	52.7	--	--	5.4	--	0.0	1.4	--	1.2	--	--	--	43
					0.3		0.0	0.0		0.3				0
	--	52.4	--	--	2.4	--	2.0	1.4	--	1.2	--	--	--	107
					1.1		0.7	2.4		1.2				0
	--	52.1	--	--	5.4	--	0.0	1.4	--	1.2	--	--	--	128
					2.4		0.0	1.4		1.2				0
TRUCKEE VALLEY														
37N/14E-100 ft 06/21/66	--	52.0	--	--	0.3	--	0.0	1.2	--	1.4	--	--	--	38
					0.3			1.2		1.2				0
	--	52.1	--	--	3.4	--	0.0	1.2	--	1.2	--	--	--	64
					1.6		1.1	1		0.3				0
	--	52.2	--	--	5.4	--	0.0	1.2	--	1.2	--	--	--	65
					0.3		1.0	1.2		1.2				1
37N/14E-170 ft 06/21/66	--	52.0	--	--	1.4	--	0.0	1.2	--	1.2	--	--	--	76
					0.3		1.0	1.2		1.2				22

TABLE E-2
TRACE ELEMENT ANALYSES OF GROUND WATER
NORTHEASTERN CALIFORNIA

State Well Number	Date	Constituents in parts per million						
		Al	As	Cu	Fe (Total)	Pb	Mn	Zn

Surprise Valley (6-1.00)

41N-16E-25C3	8-30-66		0.02					
41N-16E-35D2	8-30-66		0.00					
42N-16E-6R2	8-30-66		0.00					
42N-16E-34F1	8-30-66		0.00					
43N-16E-20B1	8-30-66		0.00					
43N-16E-33M3	8-30-66		0.00					
44N-16E-6E2	8-30-66		0.01					
44N-16E-29N1	8-30-66		0.01		0.08			
45N-16E-17D1	8-30-66		0.00		0.03			
45N-16E-19Q1	8-30-66		0.01		0.05	0.01		
46N-16E-13C1	8-30-66		0.00					
46N-16E-14R1	8-30-66		0.01'					
46N-16E-29E1	8-30-66		0.00				0.01	

Madeline Plains (6-2.00)

35N-16E-19F1	8-22-66	0.46	0.00	0.00	0.23	0.00	0.12	0.00
--------------	---------	------	------	------	------	------	------	------

Honey Lake Valley (6-4.00)

22N-17E-4K1	7.5-66		0.00					
26N-16E-15E1	8-24-66		0.01				0.00	
27N-14E-26E1	8-24-66		0.00			0.00	0.00	
28N-14E-17B1	8-23-66		0.01			0.00		
29N-12E-4G1	8-25-66		0.02				0.05	
29N-13E-1N1	8-23-66		0.07					

TABLE E-2
TRACE ELEMENT ANALYSES OF GROUND WATER
NORTHEASTERN CALIFORNIA

State Well Number	Date	Constituents in parts per million						
		Al	As	Cu	Fe (Total)	Pb	Mn	Zn

Honey Lake Valley (6- 4.00)

29N-13E-14G1	8-23-66		0.03					
29N-14E-4N1	8-23-66		0.02					
29N-14E-18R1	8-23-66		0.35					
29N-14E-19A2	8-23-66		0.12				0.00	
29N-15E-21N1	8-24-66		0.00				0.07	
29N-15E-30A2	8-24-66		0.00				0.07	
30N-12E-33N2	8-25-66		0.00					

South Fork Pit River Valley (5-2.00)

41N-11E-2J1	8-31-66	0.01	0.00	0.01	0.47	0.00	0.00	0.10
41N-13E-18P1	8-29-66		0.02		0.26	0.00		
42N-13E-32G1	8-29-66		0.01			0.00		

Big Valley (5-4.00)

37N-7E-13B1	8-4-66		0.00				0.00	
38N-7E-23D1	8-4-66		0.00		0.30	0.00	0.37	
38N-8E-30R1	8-4-66		0.00					

Fall River Valley (5-5.00)

37N-5E-1C1	8-3-66		0.00				0.01	
37N-5E-14R1	8-3-66		0.00				0.01	
37N-5E-24F1	8-3-66		0.00				0.00	
37N-6E-19L1	8-3-66		0.00					
37N-6E-29B1	8-3-66		0.00				0.02	
38N-3W-24F1	8-3-66		0.00				0.01	

TABLE E-2
TRACE ELEMENT ANALYSES OF GROUND WATER
NORTHEASTERN CALIFORNIA

State Well Number	Date	Constituents in parts per million						
		Al	As	Cu	Fe (Total)	Pb	Mn	Zn

Sacramento Valley

Redding Basin (5-6.00)

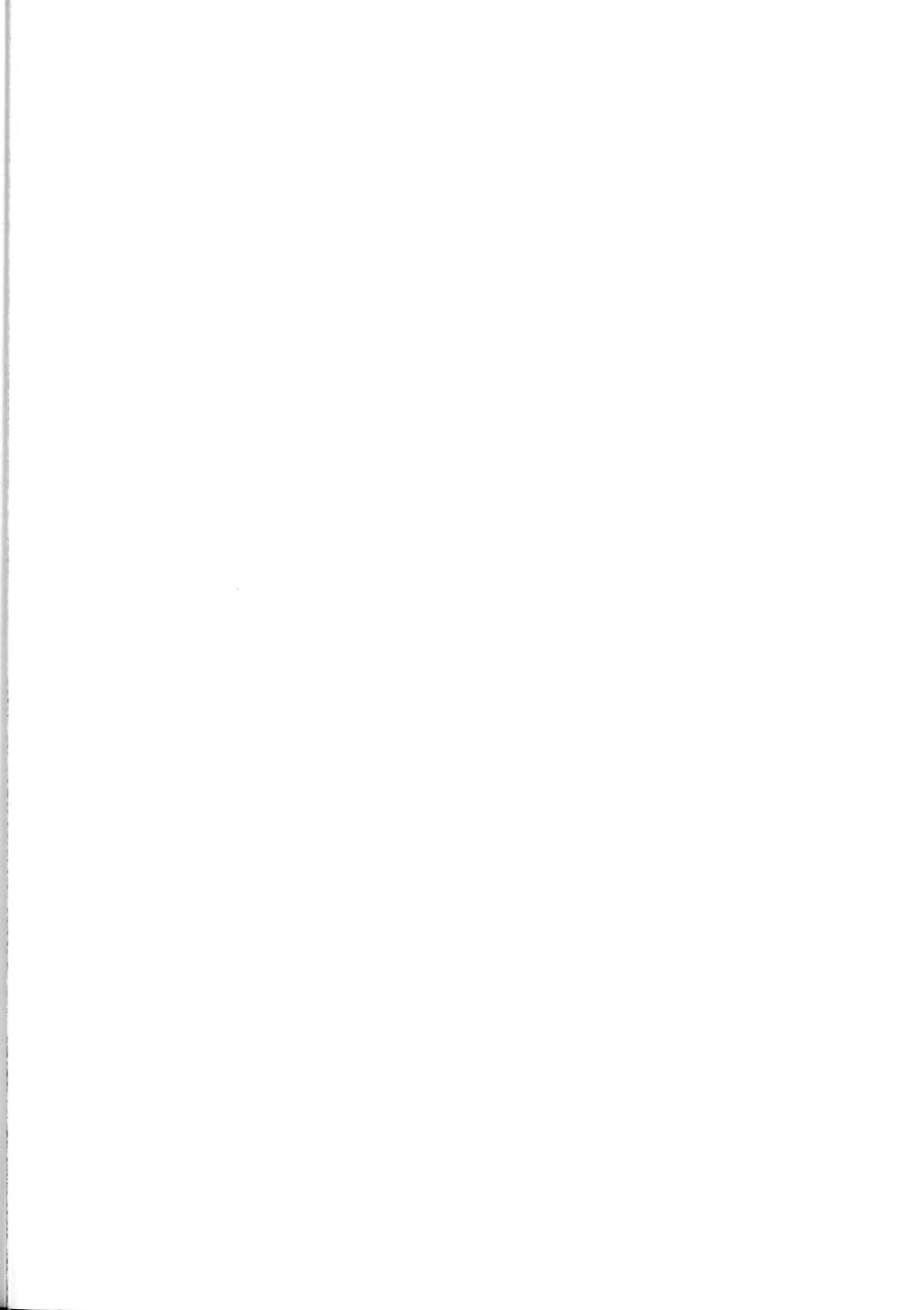
31N-4W-7A1	7-27-66			0.00				
31N-5W-25K1	7-26-66	0.01	0.00	0.00	0.09	0.00	0.18	0.02
32N-3W-17E2	7-26-66	0.00	0.01	0.02	0.77	0.00	0.00	0.05
32N-3W-20P1	7-26-66	0.03	0.00	0.02	0.48	0.01	0.09	
32N-4W-14F2	7-26-66		0.00		3.9			
32N-4W-16B2	7-26-66							0.22

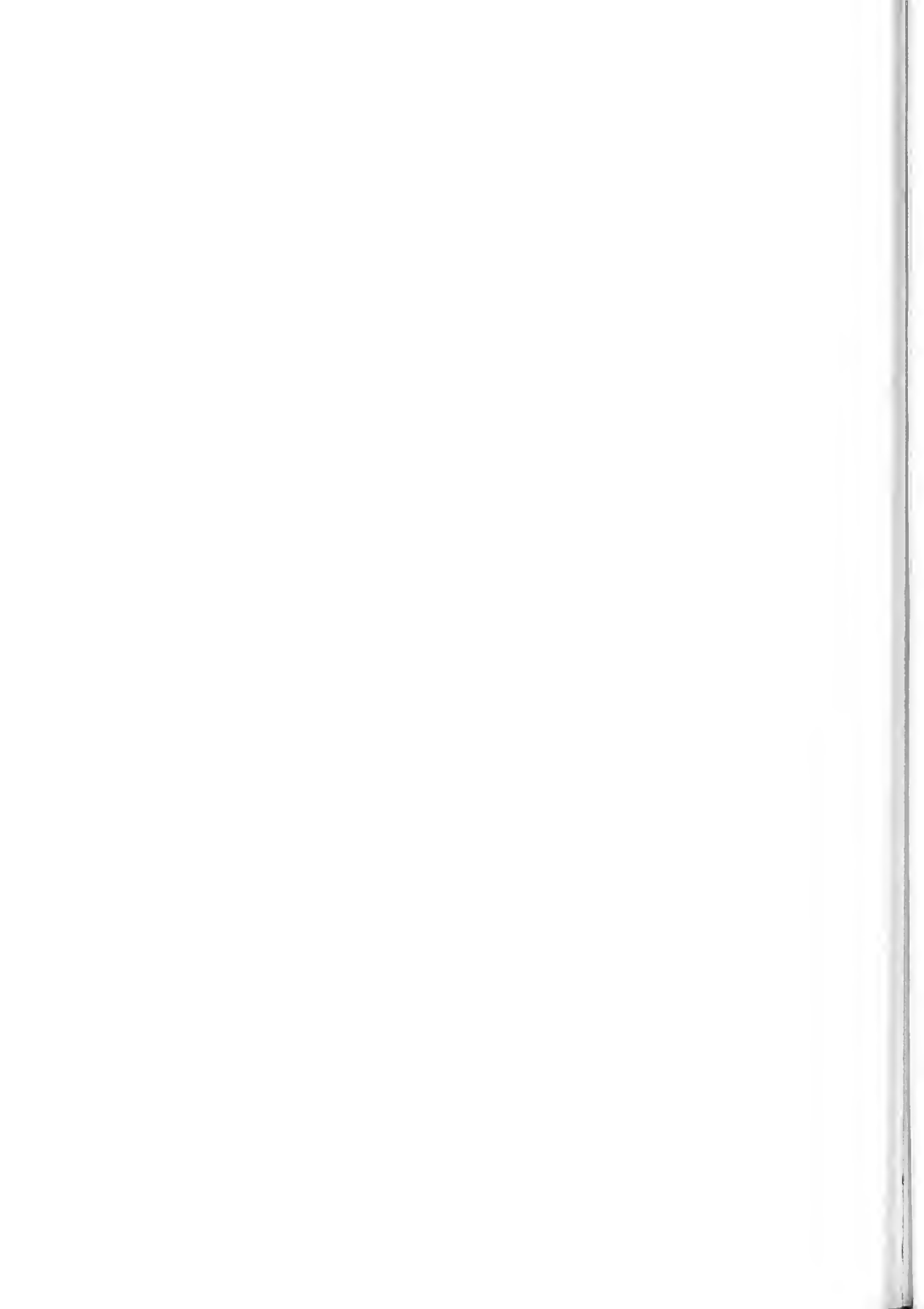
Glenn County (5-21.01)

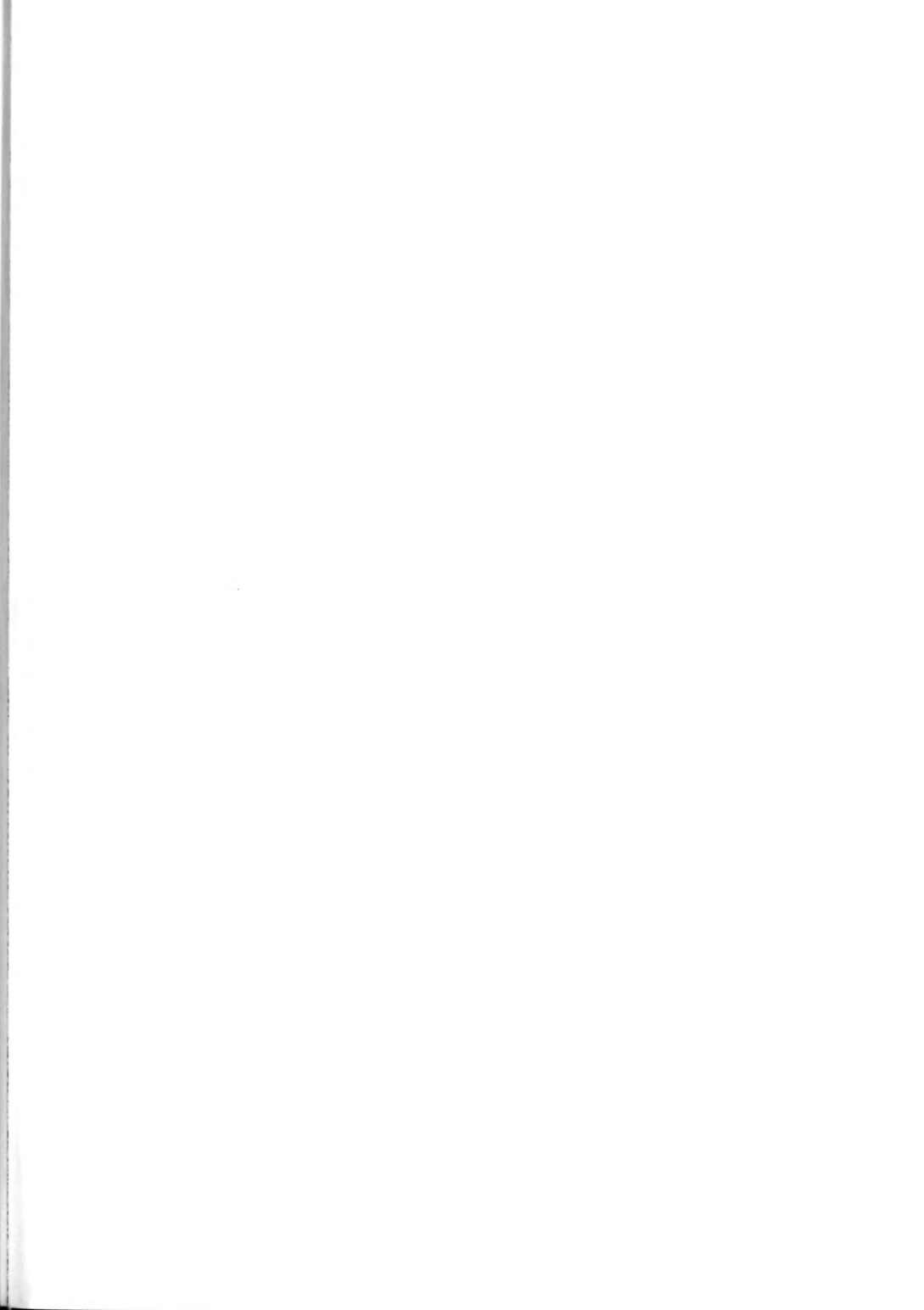
22N-3W-22Q1	7-6-66	0.00	0.00	0.00	0.02	0.00	0.00	0.00
-------------	--------	------	------	------	------	------	------	------

Colusa County (5-21.04)

13N-1W-36Q2	9-27-66			0.00				
14N-1W-2D1	9-27-66			0.00				
14N-1W-12A1	9-27-66			0.00				
15N-2W-32R1	9-27-66			0.00				
16N-2W-25B2	9-27-66			0.01				
16N-2W-35B1	9-27-66			0.00		0.00		
16N-3W-9N1	9-27-66			0.00				
17N-1W-6R1	9-27-66			0.01				
17N-2W-12C1	9-27-66			0.00				









THIS BOOK IS DUE ON THE LAST DATE
STAMPED BELOW

APR 11 1988

RENEWED BOOKS ARE SUBJECT TO IMMEDIATE
RECALL

JUN 5 1974

JUN 4 REC'D

SEP 19 1980

SEP 19 1980

OCT 1 1980

PHYC 1980

JUL 4 1985
RECEIVED

JUN 19 1985

UNIVERSITY LIBRARY

LIBRARY, UNIVERSITY OF CALIFORNIA, DAVIS

Book Slip-35m-10, '68 (J104888)458--A-31, 5

Nº 601071

PHYSICAL
SCIENCES
LIBRARY

LIBRARY
UNIVERSITY OF CALIFORNIA
DAVIS

Call Number:

601071

California. Dept.
of Water Resources.
Bulletin.

TC824
C2
A2
no.130:66
v.2

